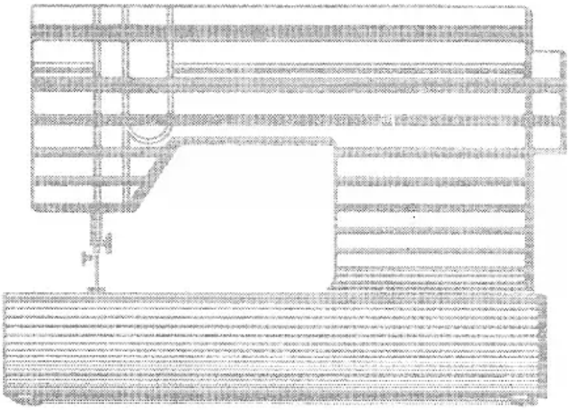


10 & 13 PATTERN SEWING MACHINES

SINGER

CAUTION !

POLARIZED PLUG FOR NORTH AMERICAN TERRITORIES

To reduce the risk of electric shock, this appliance has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

Important safety instructions

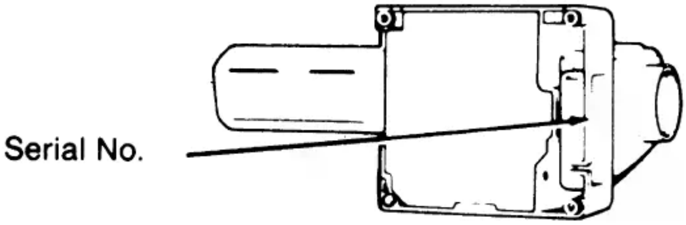
For Australia only

- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- The appliance is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the appliance.
- Switch off or unplug the machine when leaving it unattended.
- Before servicing the appliance or replacing lamps, unplug the machine.

Dear Customer:

We recommend that for future reference you record the Serial Number of your Sewing Machine in the space provided.

Refer to illustration at right for location of Serial Number on your machine.



Model No. ______________ Serial No. ________________________

Foot controller for this model is model no.: 988667-001
(for North American Territories)

To ensure that you are always provided with the most modern sewing capabilities, the manufacturer reserves the right to change the appearance, design or accessories of this sewing machine when considered necessary.

SINGER CUSTOMER ASSISTANCE IN THE U.S.A. TOLL-FREE NUMBER: 1-800-877-7762

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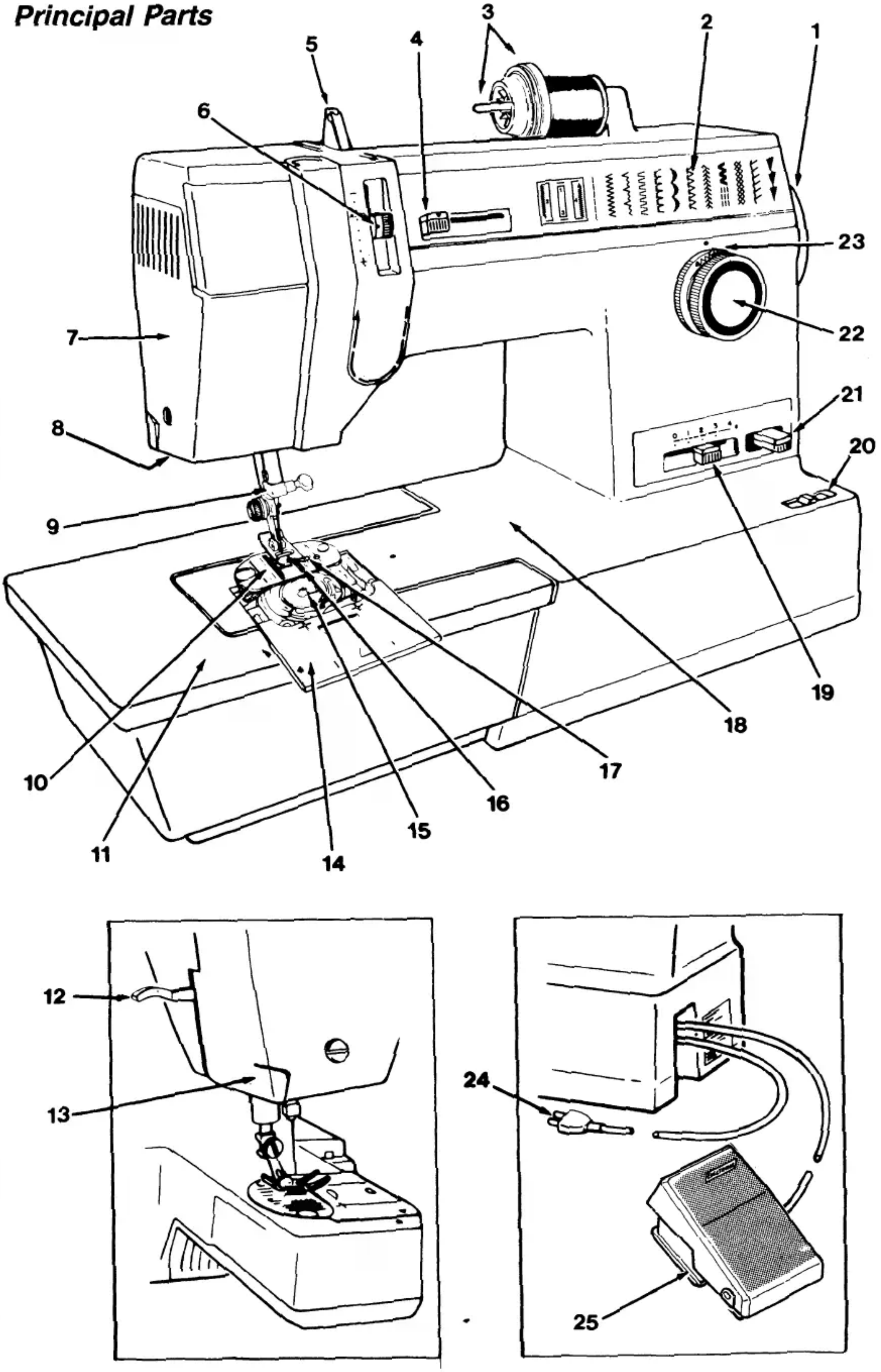
SECTION 1 GETTING TO KNOW YOUR MACHINE

Principal Parts



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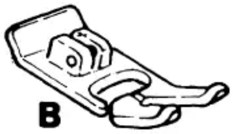
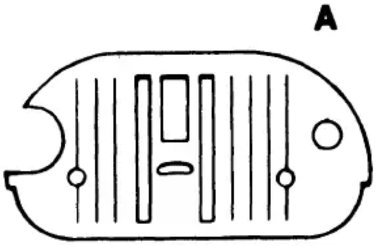
Principal Parts

1. **Hand Wheel** provides a means for raising or lowering the needle.
2. **Pattern Display Panel** shows a variety of patterns available for your sewing needs.
3. **Friction-Free Spool Pin and Cap** hold the top thread supply and allow it to unwind smoothly as the spool does not turn.
4. **Stitch Width Lever** controls the width of patterns and sets the needle for straight stitching.
5. **Snap-In Thread Guide** helps to insure a smooth flow of thread from the spool to the tension.
6. **Auto Needle Thread Tension Lever** controls top thread tension.
7. **Face Plate** is a removable cover protecting movable parts and sewing light.
8. **Sewing Light** illuminates sewing area.
9. **One-Way Needle Clamp** holds needle in machine and prevents incorrect insertion.
10. **Needle Plate supports the fabric during sewing.**
11. **Removable Extension Table** lets you change the machine bed from flat to free arm.
12. **Presser Foot Lifter,** at the back of machine, lets you raise and lower presser foot.
13. **Thread Cutter,** is built into face plate cover for convenience and safety.
14. **Slide Plate,** with window to see bobbin thread supply, opens for easy removal and replacement of bobbin. It also activates the bobbin winder.
15. **Bobbin Winder** is built into machine and allows you to switch from sewing to bobbin winding without removing bobbin.
16. **Feed System** moves fabric under presser foot.
17. **Presser Foot** holds fabric against the feed system and snaps on and off.
18. **Bed** is the work surface of the machine.
19. **Stitch Length Lever** allows for a variety of stitch lengths.
20. **Power and Light Switch** turns on the machine and sewing light at the same time.
21. **Reverse Lever** provides either momentary or continuous reverse fabric movement.
22. **Pattern Selector Dial** turns directly to any of the patterns, plus buttonhole, shown on the pattern display panel.
23. **Stitch Balance Ring** adjusts appearance of Special Stitch patterns and buttonholes.
24. **Electrical Power Cord** connects machine to your electrical outlet.
25. **Speed Controller,** designed for safety and convenience, regulates the electronic solid state speed control.

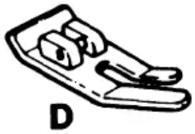
ACCESSORIES

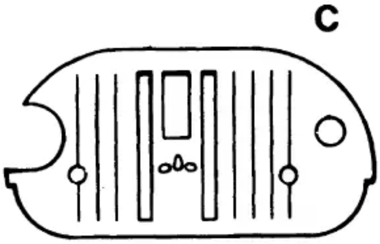
The accessories for your machine are designed to simplify many of your sewing projects.



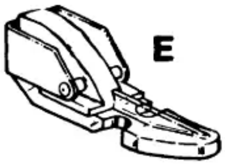


General Purpose Needle Plate (A), and **Presser Foot (B),** are standard on the machine. Used for straight and zig-zag stitching.

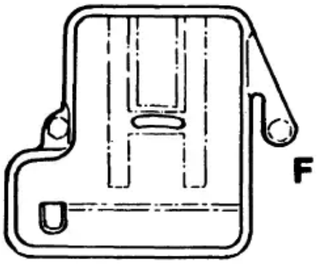




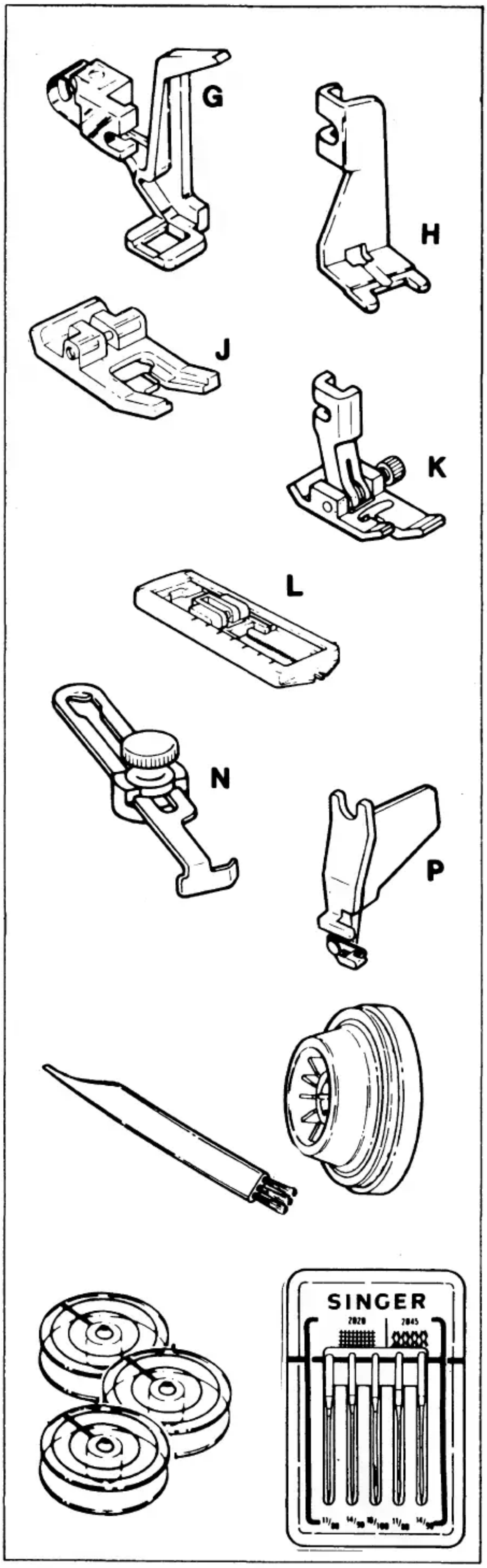
Straight Stitch Needle Plate (C), and **Presser Foot (D),** used when straight stitching light-weight fabrics.



Zipper Foot (E), for inserting zippers.



Feed Cover (F), used for button sewing, free motion work and darning. It keeps the feed from moving fabric.



Darning and Embroidery Foot (G) is recommended for free motion work, such as embroidery, monogramming and decorative designs.

Button Sewing Foot (H) hold buttons securely for fastening.

Special Purpose Presser Foot (J), used for decorative and zig-zag sewing.

Blindstitch Presser Foot (K) helps guide fabric for nearly invisible blindstitch hems.

Buttonhole Presser Foot (L), used to make four-step buttonholes.

Seam Guide (N) helps keep seam allowances even.

Needle Threader (P) assists in threading machine needle.

Spool Holder for medium and large thread spools.

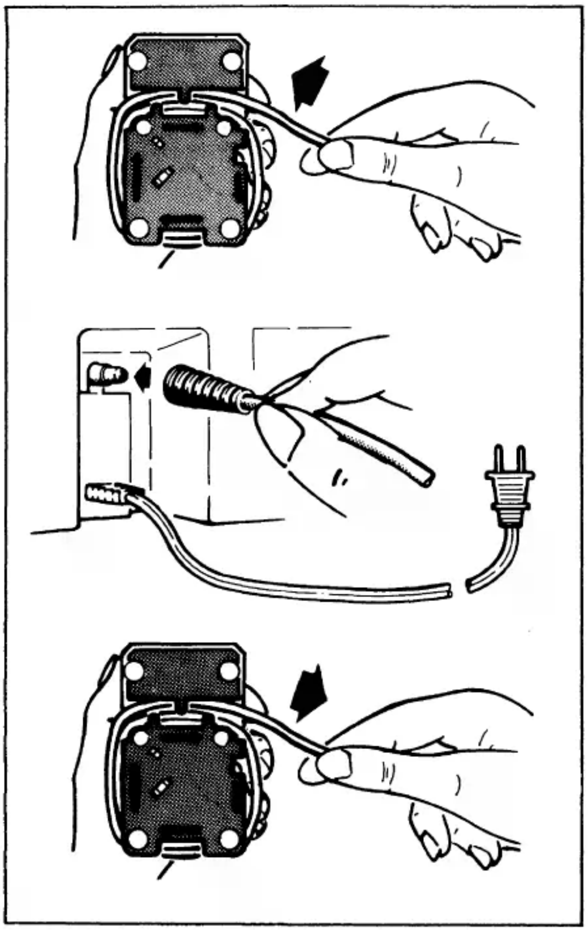
Lint Brush, for cleaning the machine.

Bobbins, transparent for easy viewing of thread supply.

Needle Pack, includes an assortment for sewing various types of fabrics.

CONNECTING THE MACHINE

The solid state system assures constant speed as you maintain the same pressure on the controller when sewing through various fabric thicknesses.



Unwind the air control hose from foot operated speed controller.

Always be sure air hose is not blocked. Pressing on the controller, you should feel a slight air flow from the hose.

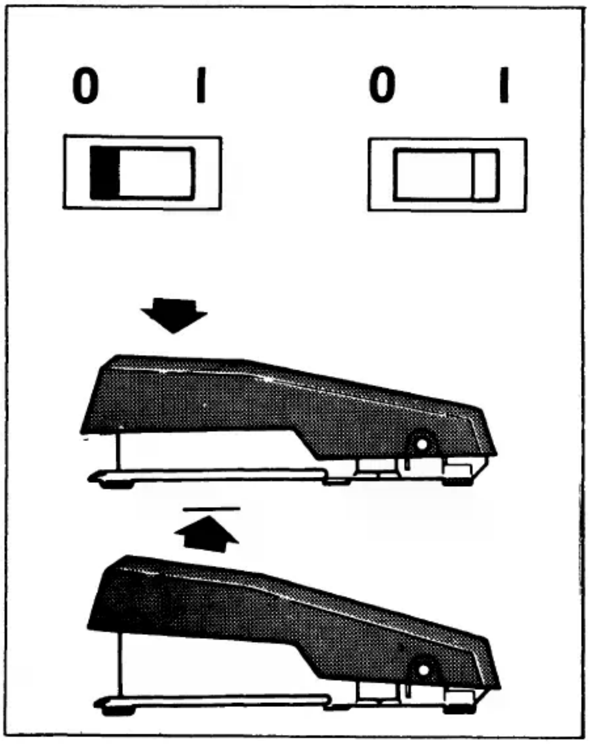
Plug this air hose onto the receptacle above power cord, at the right end of the machine.

Then connect the electrical power cord plug to your electrical outlet.

NOTE: When not using the machine, rewind air hose around speed controller for storage, as shown.
Do not operate machine without material under the presser foot as this may damage the feed and the foot.

RUNNING THE MACHINE

The machine and the sewing light are turned on and off by the same power switch.



ROCKER SWITCH
To turn on machine and sewing light, press power switch down at right side. To turn off machine and light, press power switch down at left side.

To run the machine, press the speed controller. The harder you press, the faster the machine will sew.

To stop the machine from sewing, remove pressure from speed controller.

IMPORTANT SAFETY INSTRUCTIONS

When using this machine, basic safety precautions should always be followed including the following:
Read all instructions before using this machine.

DANGER.

To reduce the risk of electric shock:

- The machine should never be left unattended when plugged in. Always unplug the machine from the electric outlet immediately after using and before cleaning.
- Always unplug before changing light bulb. Replace bulb with the same type rated 15 watts. Be sure to replace the face plate which covers the light blub before operating the machine.

WARNING.

To reduce the risk of burns, fire, electric shock or injury to persons:

- Be sure that the electrical voltage of the socket outlet (wall receptacle) is the same as the rated voltage of the motor.
- Use this machine only for its intended use as described in this Operator's Guide. Use only attachments recommended by the manufacturer as contained in the Operator's Guide.
- To disconnect, turn all controls to the off ("0") position, then remove plug from outlet.
- Disconnect the power-line plug from the socket outlet or switch the machine off when making any adjustments in the needle area, such as threading needle, changing needle, changing needle plate or changing presser foot, etc.
- Always unplug the machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the Operator's Guide.
- Do not attempt to adjust the motor belt. Contact your nearest Service Center should any adjustment be required.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Handle the foot controller with care and avoid dropping it on the floor. Be sure not to place anything on top of it.
- Always use the proper needle plate. The wrong plate can cause the needle to break.
- Do not use bent needles.
- When sewing, keep fingers away from all moving parts. Special care is required around the sewing machine needle.

- Do not pull or push fabric while stitching. This may deflect the needle causing it to break.
- Before removing the bobbin case, remove plug from the socket outlet.
- For double insulated machines, when servicing, use only identical Singer replacement parts. See instructions for Servicing of Double-Insulated Appliances.
- Never operate the machine if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water. Return the machine to the nearest authorized dealer or Service Center for examination, repair, electrical, or mechanical adjustment.
- Never operate the machine with any air openings blocked. Keep ventilation openings of the machine and foot controller free from the accumulation of lint, dust, and loose cloth.
- Never drop or insert any object into any opening.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Do not allow to be used as a toy. Close attention is necessary when the machine is used by or near children.
- SERVICING OF DOUBLE-INSULATED PRODUCTS. In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product, nor should a means for grounding be added to the product. Servicing of a double-insulated product requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product. A double-insulated product is marked with the words "DOUBLE-INSULATION" or "DOUBLE INSULATED".

SAVE THESE INSTRUCTIONS

Servicing should be performed by an authorized service representative.

This product is intended for household use.

FOR EUROPEAN AND SIMILAR TERRITORIES:

This product is suppressed for radio and television interference with the International Electrotechnical Commission requirements of the CISPR.

Mchines for Great Britain and some other countries having similar wiring standards are shipped from the factory with a plug for connection to the mains. The wires in this mains lead are coloured in accordance with the following code:

Blue: neutral (N)   Brown: live (L)

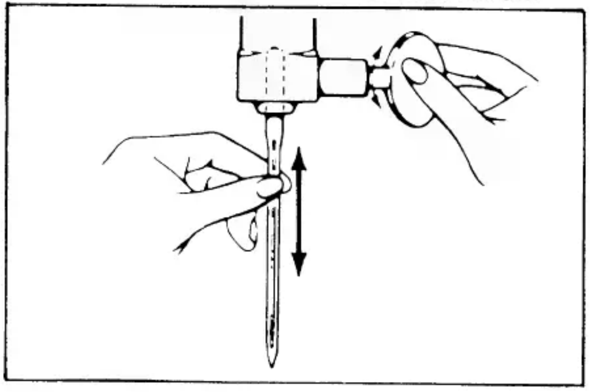
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red. If a 13 Amp. (BS 1363) plug is used, a 3 Amp. fuse must be fitted, or if any other type of plug is used, a 5 Amp. fuse must be fitted either in the plug or adaptor or at the distribution board. Neither cord is to be connected to the earth terminal of a three-pin plug.

SECTION 2 GETTING READY TO SEW

CHOOSING AND CHANGING NEEDLES

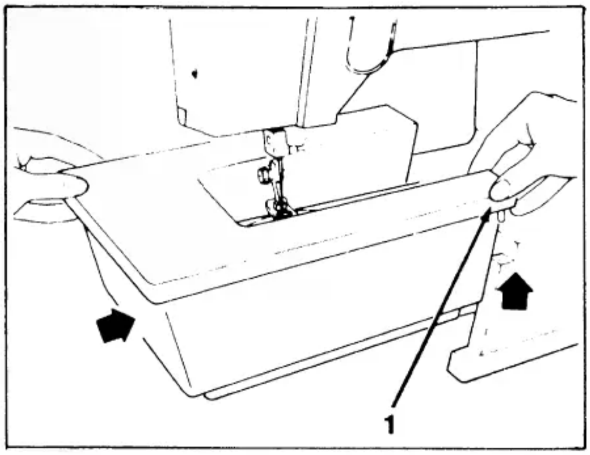
IMPORTANT: For best sewing results, use only Singer needles.
Check the needle package, and the Fabric, Thread and Needle Table on page 41, for the correct needle and fabric combination.



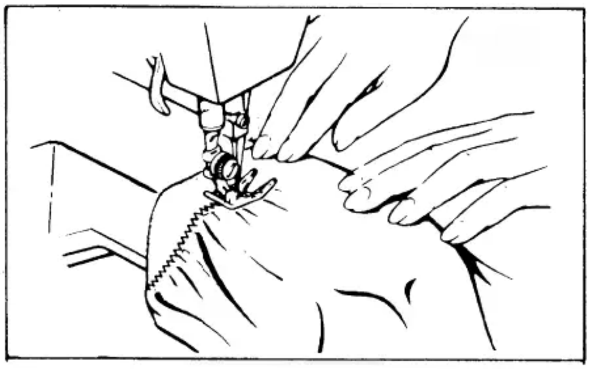
- Raise needle to its highest position.
- Loosen needle clamp screw and remove needle.
- With flat side of needle to the back, insert new needle up into clamp as far as it will go.
- Tighten needle clamp screw securely.

FREE ARM SEWING

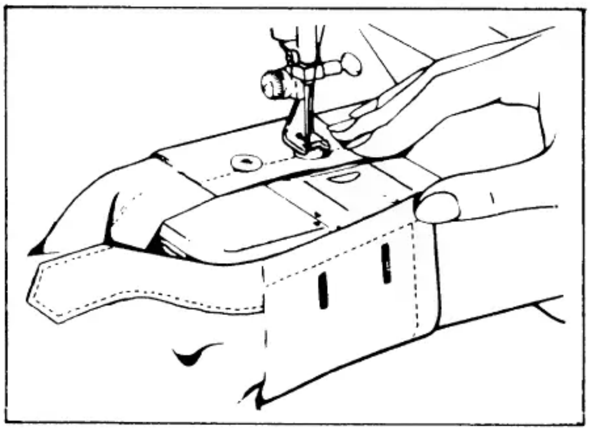
Free arm sewing makes it easier to sew hard-to-reach areas.



To change machine for free arm sewing, push in and lift right edge **(1)**, of extension table, slide it to the left and off the machine.



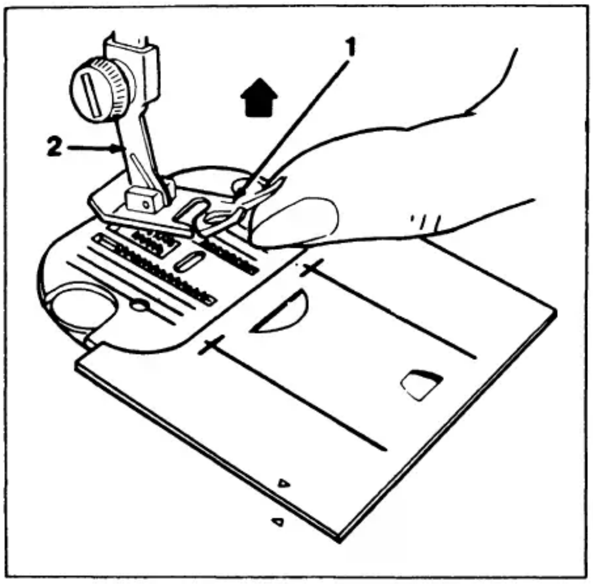
- Topstitch edges on sleeves, or finish waistbands and pants legs easily.



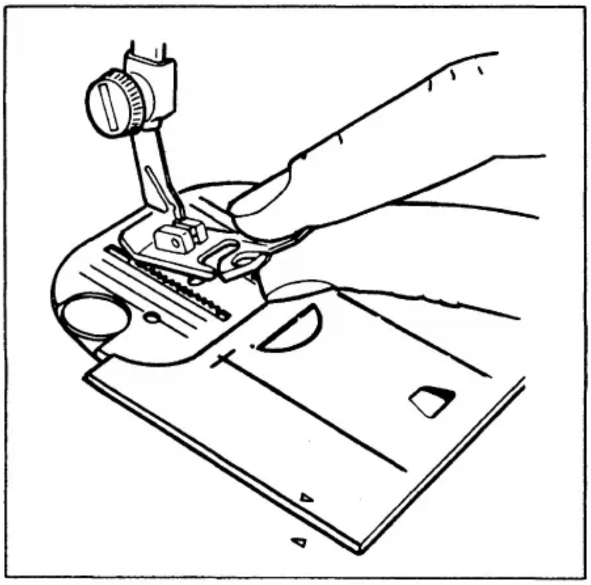
- Attach buttons without stretching cuffs and neckbands.

CHANGING THE PRESSER FOOT (B) (D) (E) (J) (L)

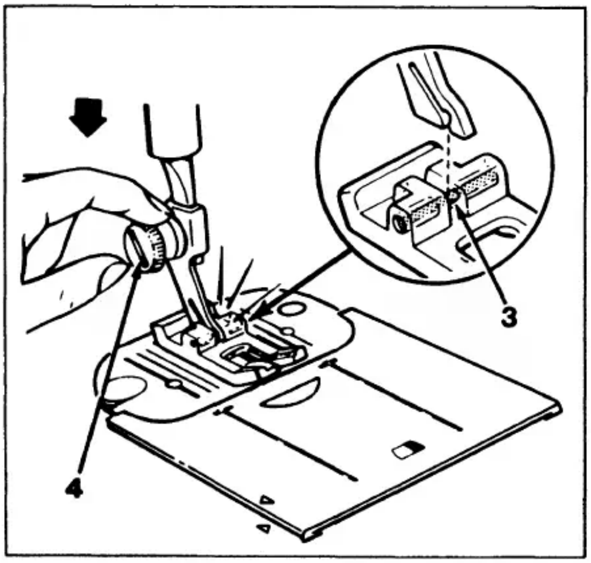
Your machine comes with the General Purpose Presser Foot (B) already attached You can easily change to any one of the other presser feet which snap onto a common shank by following the directions below.



- Raise needle to its highest position by turning hand wheel toward you.
- Raise presser foot using presser foot lifter in back of machine.
- Push toe of presser foot **(1)** up, until it snaps off the shank **(2)**.



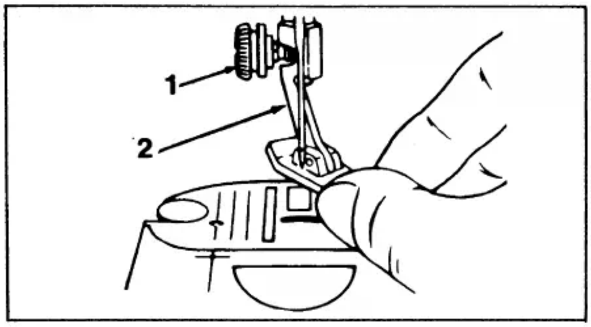
- Take foot off machine.



- Place new foot under center of shank.
- Lower presser foot lifter, fitting shank over presser foot pin **(3)**.
- Don't turn screw. Instead, **push** presser foot screw **(4) down** firmly until foot snaps into place.

REPLACING PRESSER FOOT WITH SHANK (H) (K)

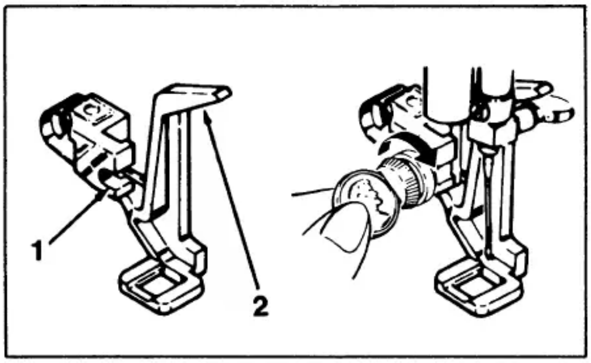
Presser feet with built-in shanks can be replaced as follows:



- Turn machine off.
- Raise needle and presser foot.
- Loosen presser foot screw **(1)** and remove presser foot with shank **(2)**, guiding it toward you and to the right.
- To replace presser foot with shank, hook shank around the presser bar and tighten presser foot screw.

ATTACHING DARNING AND EMBROIDERY FOOT (G)

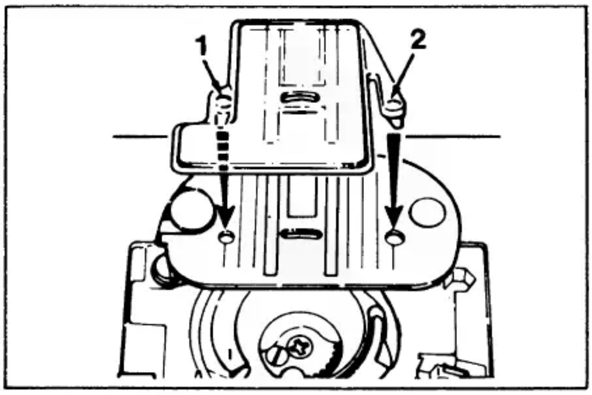
This foot permits better control of fabric when doing free motion work.



- Raise needle.
- Remove presser foot with shank.
- Guide Darning and Embroidery Foot from back of needle, with holding fork **(1)** around presser foot screw, and lifting finger **(2)** above needle clamp.
- Tighten presser foot screw with coin.
- To remove, loosen screw; guide foot back.

ATTACHING FEED COVER (F)

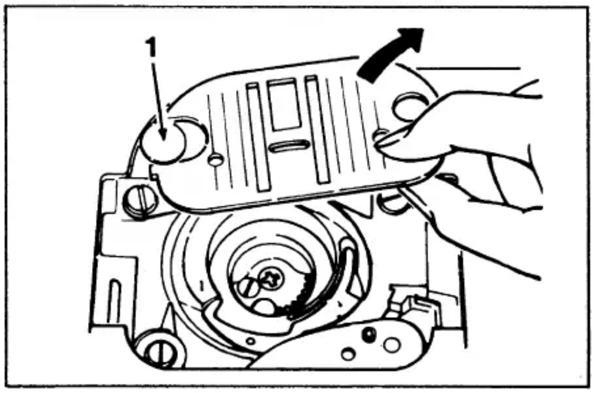
The feed cover keeps the feed from moving the fabric.



- Raise needle and presser foot.
- Open slide plate.
- Slide feed cover on top of needle plate, pressing tabs **(1)** and **(2)** into holes.
- Close slide plate.
- To remove, open slide plate and lift front edge of cover; pull it away.

CHANGING THE NEEDLE PLATE (A) (C)

Your machine comes with the General Purpose Needle Plate **(A)** attached. To attach the Straight Stitch Needle Plate **(C)**:



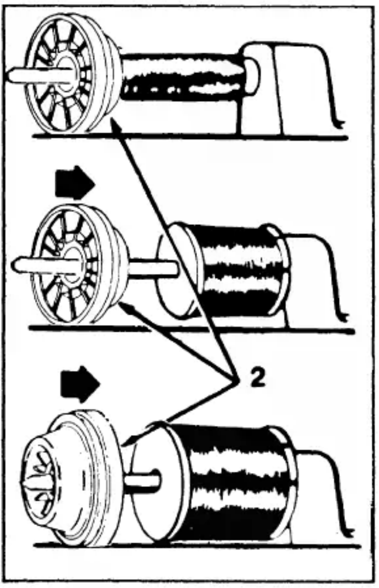
- Raise needle and presser foot.
- Open slide plate.
- Lift up needle plate from right corner and slide out from under foot.
- To replace needle plate, slide it under pin **(1)** and push it firmly to the left.
- Press down until it snaps into place.

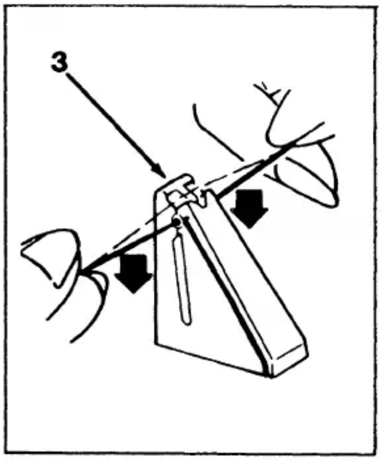
THREADING THE MACHINE

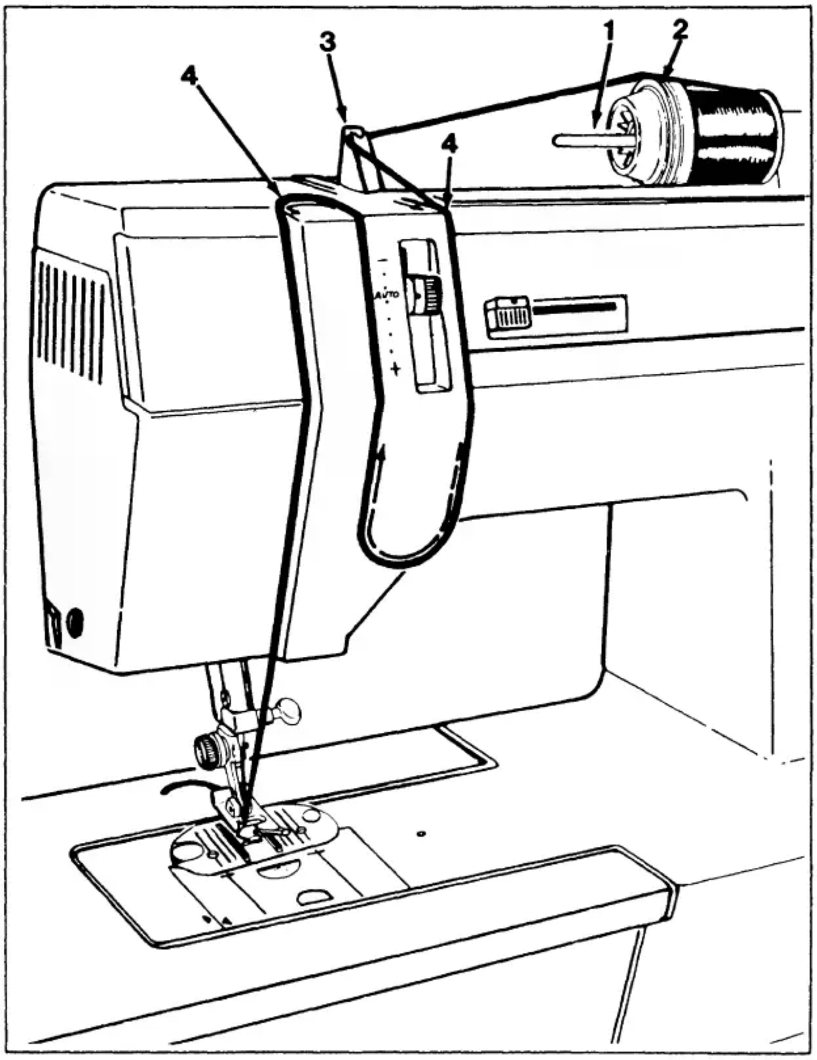
Your sewing machine is easily threaded. Tension discs, thread guides and take-up lever have been designed as internal parts, eliminating many extra threading steps. The clear threading path helps you avoid threading errors.

To thread your machine correctly, simply follow the steps below:

- Raise presser foot lifter.
- Raise needle to its highest position by turning hand wheel toward you.
- Place spool of thread on spool pin **(1)**.
- Slide spool cap **(2)** firmly **over** the rim of the spool to prevent thread tangling.
- Snap thread into thread guide post **(3)**.
- Following arrows, guide thread into auto tension channel **(4)** down to needle and firmly pull thread.
- Thread needle **from front to back.**

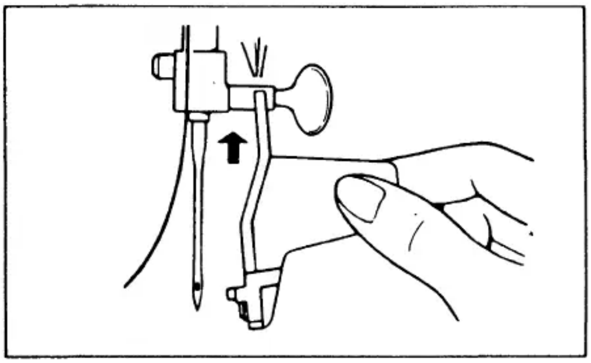




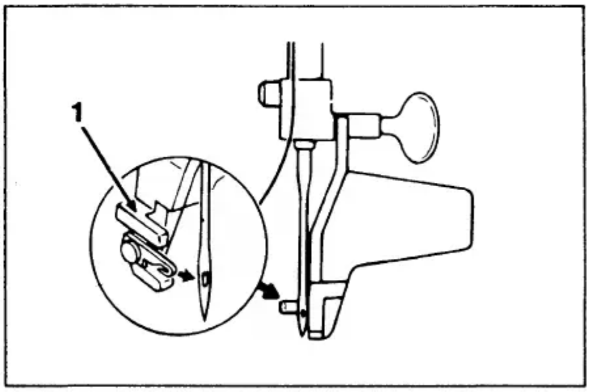


USING THE NEEDLE THREADER (P)

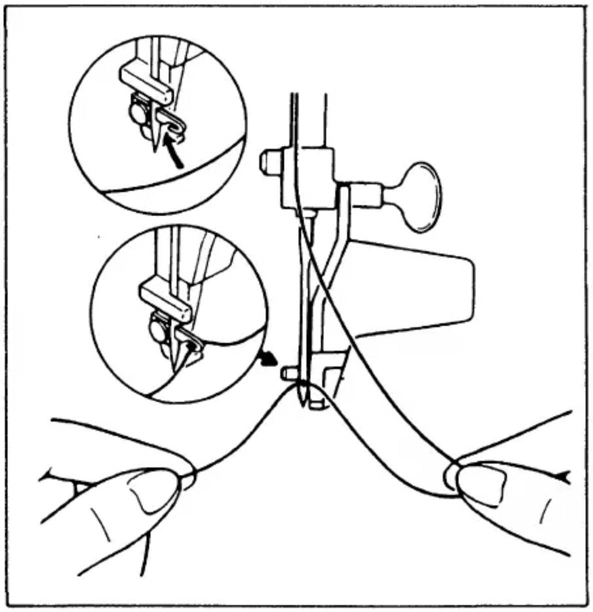
To help in threading the machine needle, use the needle threader as follows:



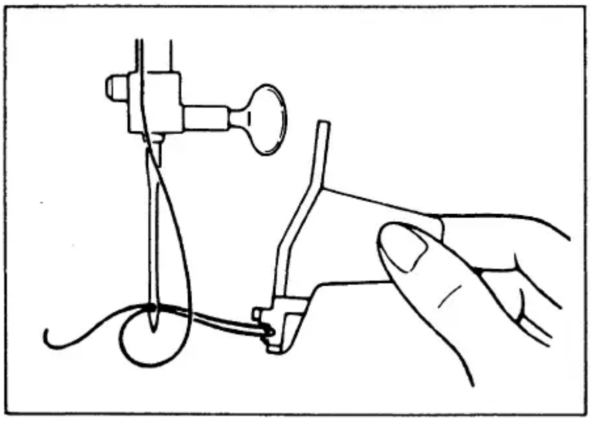
- Thread machine and draw 4″ (10cm) of thread down to the needle.
- Lower presser foot lifter.
- Holding needle threader as shown with your right hand, position U-shaped part of threader under bar of needle clamp.
- Snap threader up onto bar.



- Swing threader back just far enough to clear the needle.
- Slide threader as far to the left as it will go.
- Be sure guide **(1)** is against the left side of the needle.



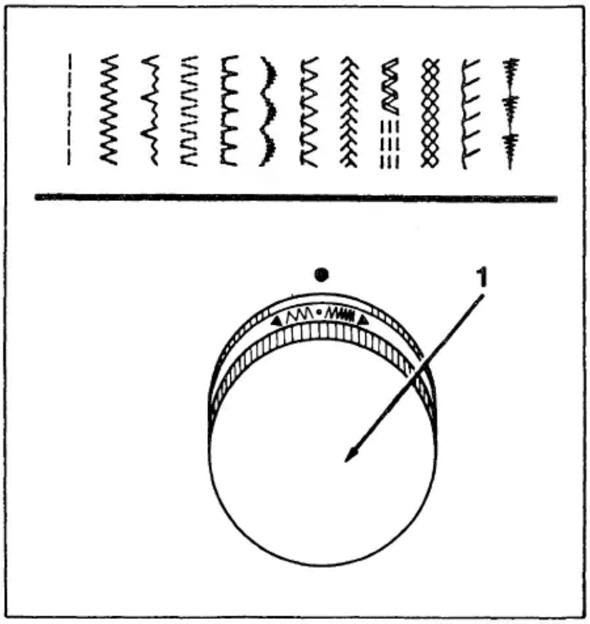
- Bring metal hook of threader forward, through the eye of the needle.
- Holding 3″ (7.5cm) of thread between your fingers, guide thread into metal hook. Release thread.



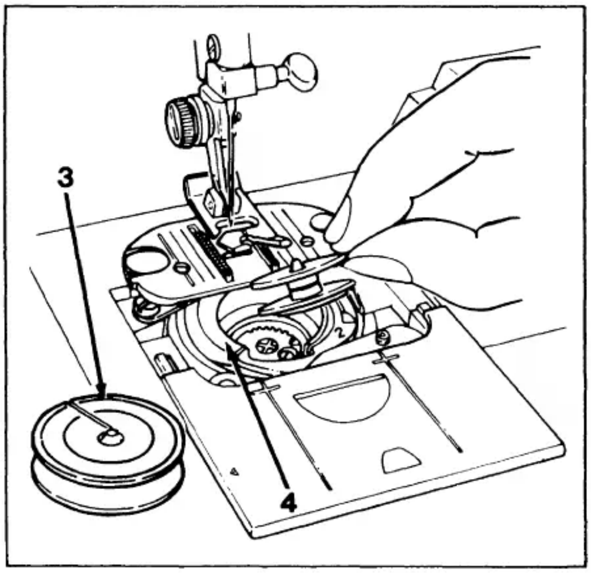
- Holding threader with right hand, draw metal hook and thread backwards through eye of the needle.
- To remove needle threader, slide it to the right, and off bar of needle clamp.
- Carefully unhook thread from needle threader.

WINDING A BOBBIN

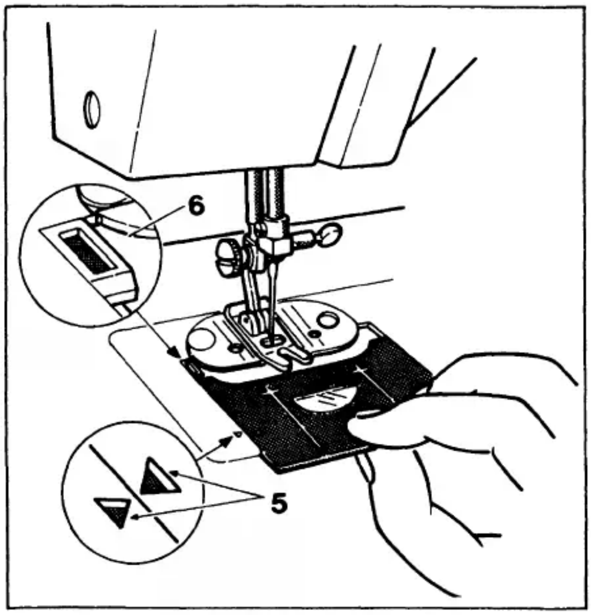
The wind-in-place bobbin winds quickly and easily while it's in the machine.



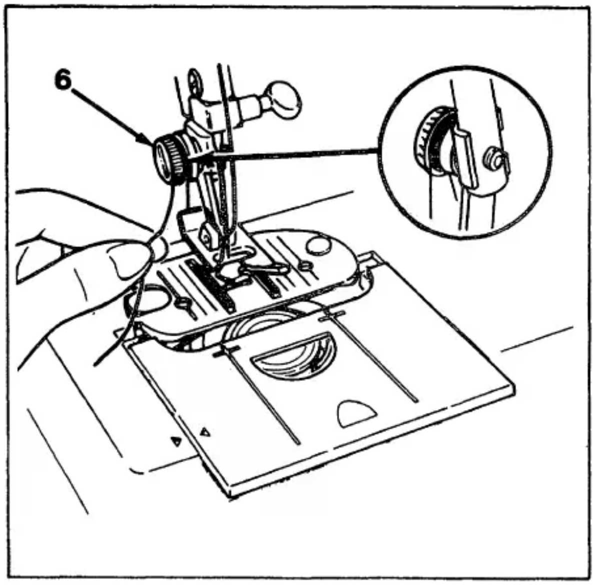
- Raise needle to highest position by turning hand wheel toward you.
- Raising presser foot.
- Open slide plate.
- Turn pattern selector dial **(1)** until indicating dot lines up under Straight Stitch/ Bobbin Winding. (Details on "Selecting a Pattern" are on page 18.)



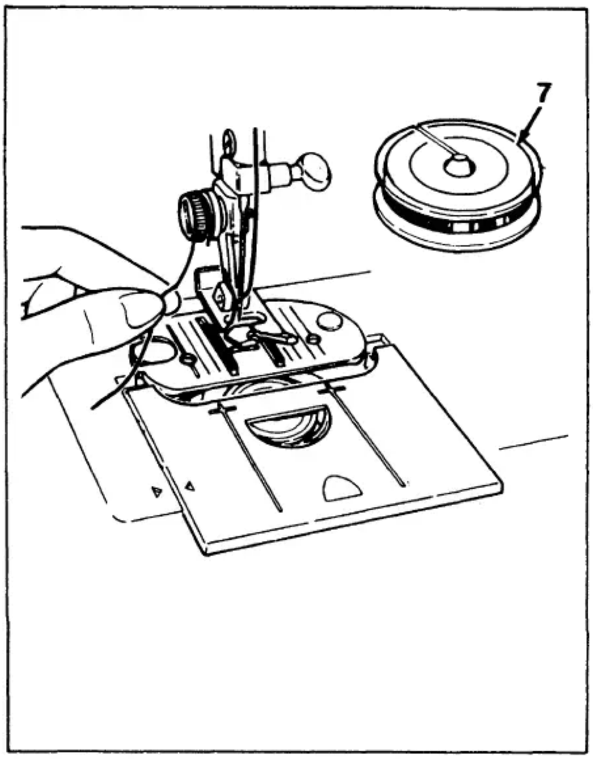
- Put an empty bobbin, with black rings **(3)** facing up, into bobbin case **(4)**.



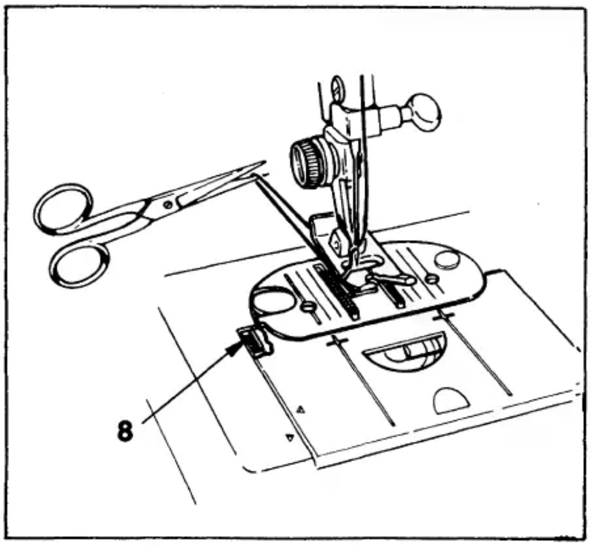
- Close slide plate, lining up marks **(5)** on slide plate and machine bed. This engages the bobbin winder.
- If your machine has pop-up automatic positioning button **(6)**, close slide plate until it stops against button. This will automatically engage bobbin winder.



- Bring thread from needle, under presser foot and wind it one turn in any direction, around presser foot screw **(6)** pulling it into spring groove on screw.



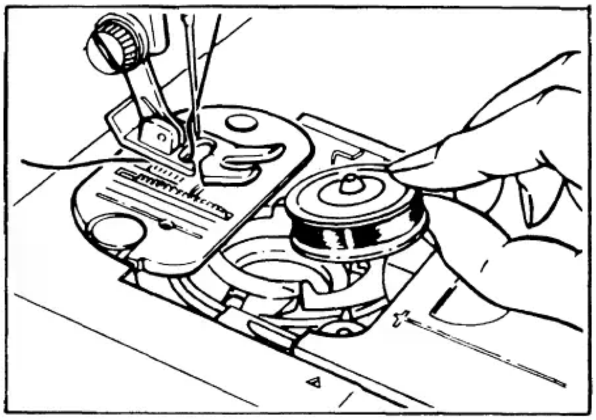
- Begin running machine at a moderate speed.
- The window in the slide plate lets you watch the bobbin winding.
- When desired amount of thread has been wound, stop machine. DO NOT ALLOW THREAD TO WIND BEYOND THE OUTSIDE "FULL" RING **(7)**.
- Remove thread from presser foot screw.



- Close slide plate, returning machine to sewing position.
- If your machine has pop-up automatic positioning button **(8)**, push button down with your finger while closing slide plate.
- Raise needle to its highest position.
- Pull 4″ (10cm) of thread under foot toward back of machine, and cut.
- To begin sewing, position needle in fabric where desired, lower presser foot and start machine.

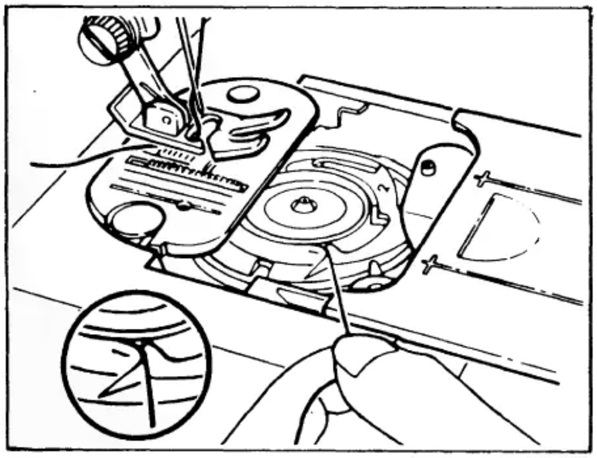
INSERTING A WOUND BOBBIN

When you want to sew with a bobbin that is already wound, insert it following the instructions below.

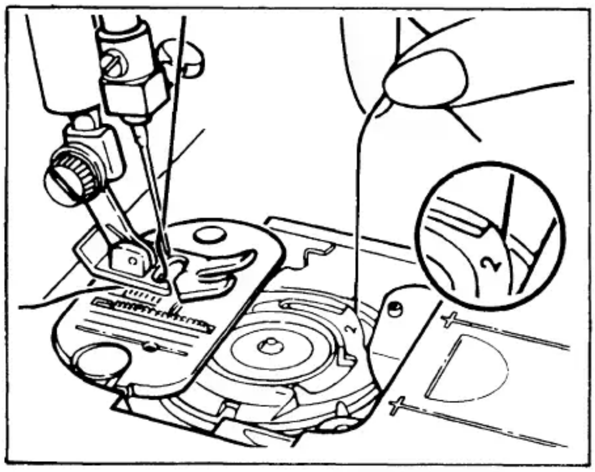


- Raise presser foot.
- Turn hand wheel toward you until needle is in its highest position.
- Open slide plate completely, and remove bobbin.

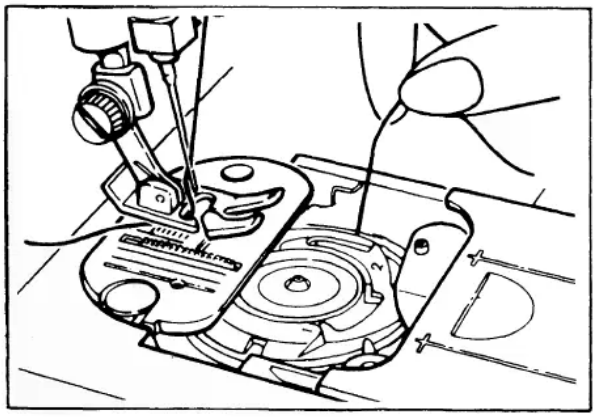
1. Pull 4″ (10cm) of thread from replacement bobbin and insert bobbin, with rings facing up, into case.



2. Holding bobbin in place, guide thread into **notch (1)**



3. Bring thread around and **past point #2.**

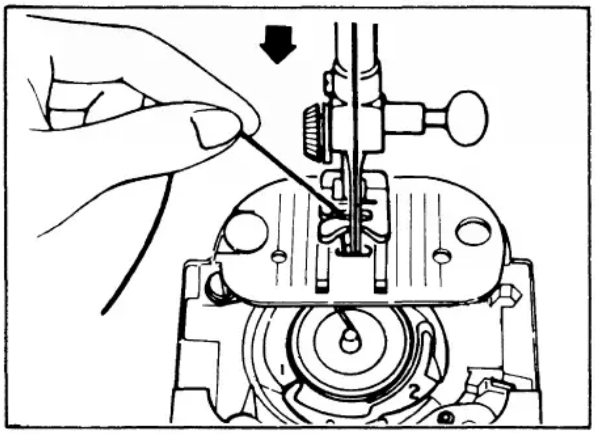


4. Holding bobbin thread on outside, leave slide plate open.

- Follow directions for "Raising Bobbin Thread", on page 17.

RAISING THE BOBBIN THREAD

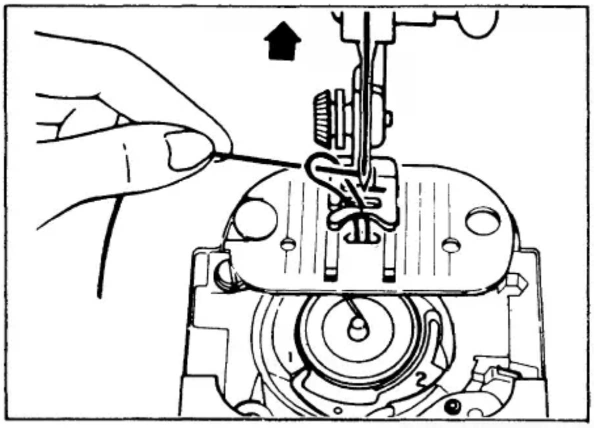
Once the needle has been threaded and the bobbin placed in the bobbin case, the bobbin thread must be brought up through the hole in the needle plate.



- Be sure slide plate is fully open.

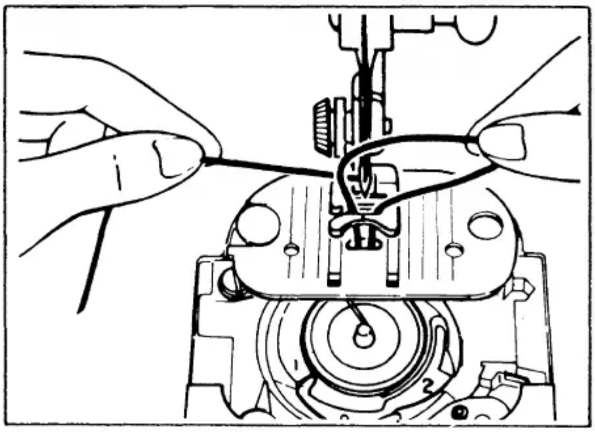
1. Hold needle thread with left hand.

- Turn hand wheel slowly toward you, lowering needle into hole in plate.

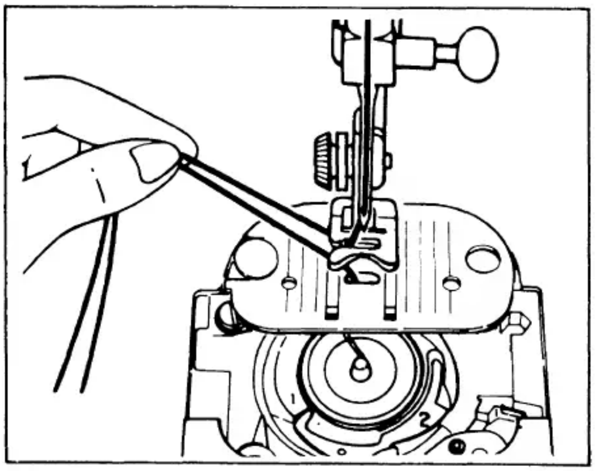


2. Continue to do this until needle rises above needle plate.

- Pull gently on needle thread and bring up bobbin thread in a loop.



3. Open loop with fingers to find end of bobbin thread.

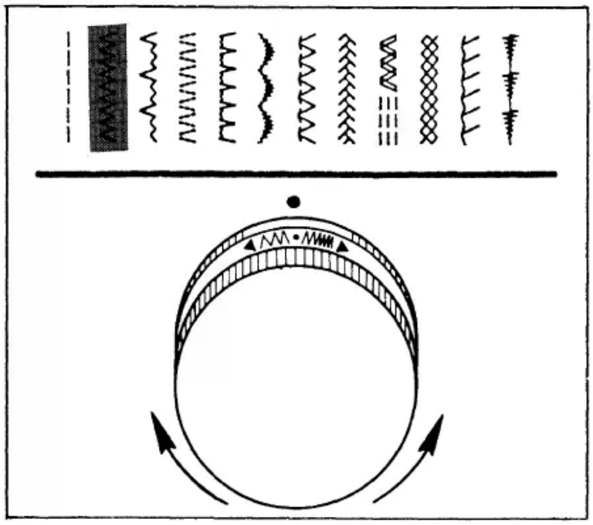


4. Draw needle thread through left side opening in presser foot.

- Pull both threads to back of machine.
- Completely close slide plate once bobbin thread has been brought up.

SELECTING A PATTERN

All the patterns your machine is capable of sewing are illustrated on the pattern display panel of your sewing machine.

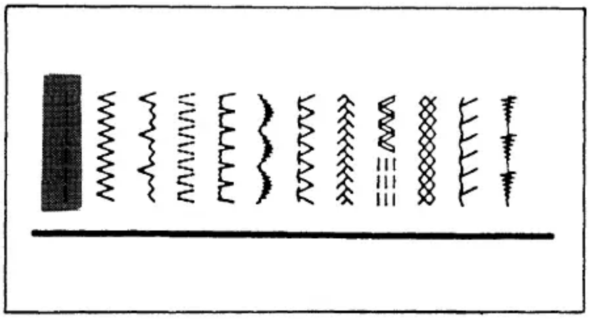


- Select a pattern by turning the selector dial until indicator appears under desired pattern.
- For instance, to sew a Zig-zag Stitch, you would turn the selector dial until the indicator appears under desired pattern.
- To change the stitch pattern, turn the pattern selector dial left or right to the desired pattern.

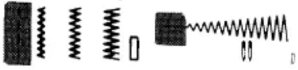
With each application, recommended settings are given. These have been highlighted for easy identification. You can adjust each setting, however, as desired.

SECTION 3 STRAIGHT STITCHING

Before beginning a sewing project, check the Fabric, Thread and Needle Table on page 41 for the best needle and thread combination for your fabric.

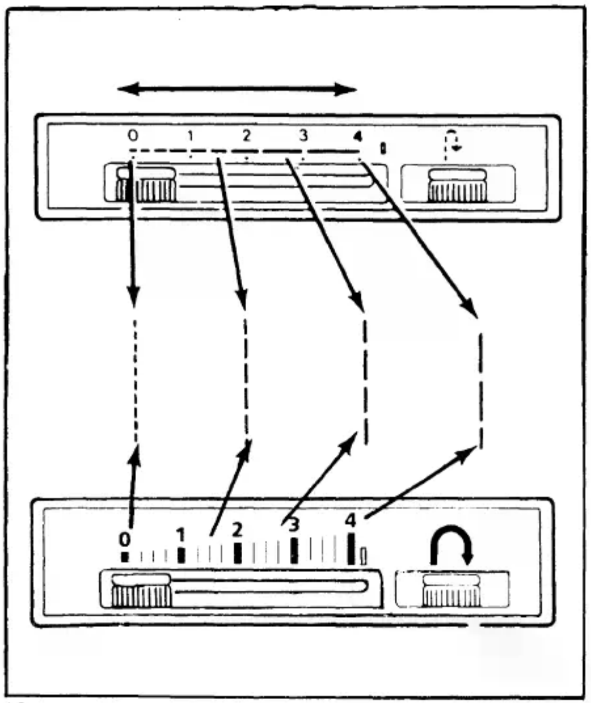


RECOMMENDED SETTINGS

Stitch Selection:	Straight Stitch
Stitch Width:	
Stitch Length:	**1-1/2** to **4**
Foot:	General Purpose **(B)**
Needle Plate	General Purpose **(A)**

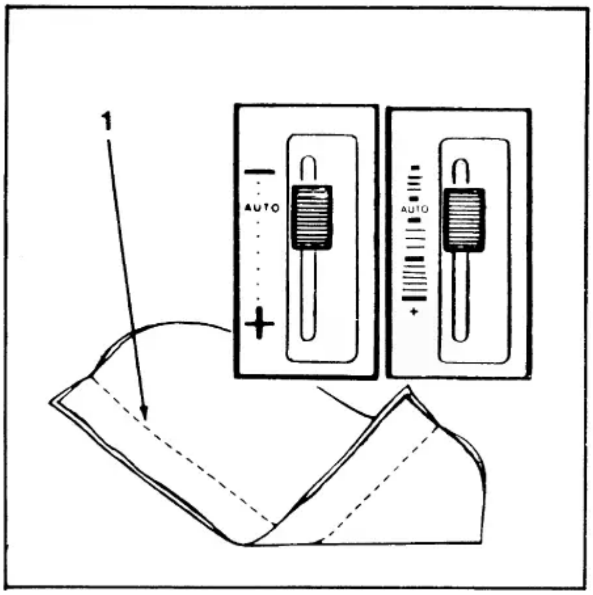
ADJUSTING STITCH LENGTH

The stitch length indicator is numbered **0 - 4**. The lower numbers are shorter stitches. Shorter stitches are best for light-weight fabrics; longer ones for heavy fabrics. To adjust the length of your stitches, slide the stitch length lever to the left or right.

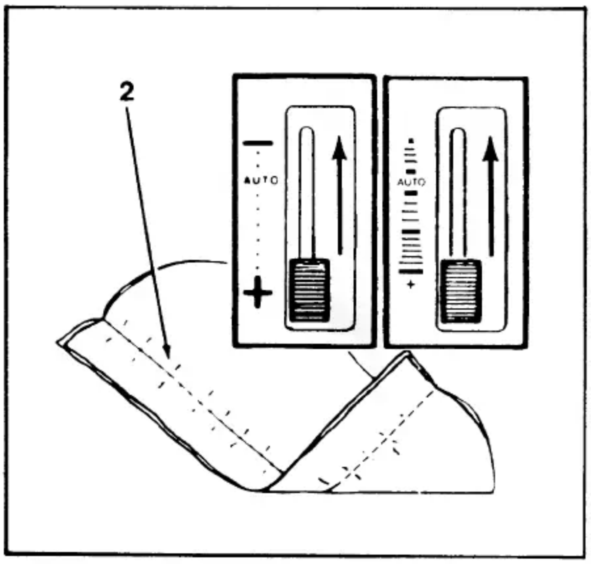


ADJUSTING THREAD TENSION

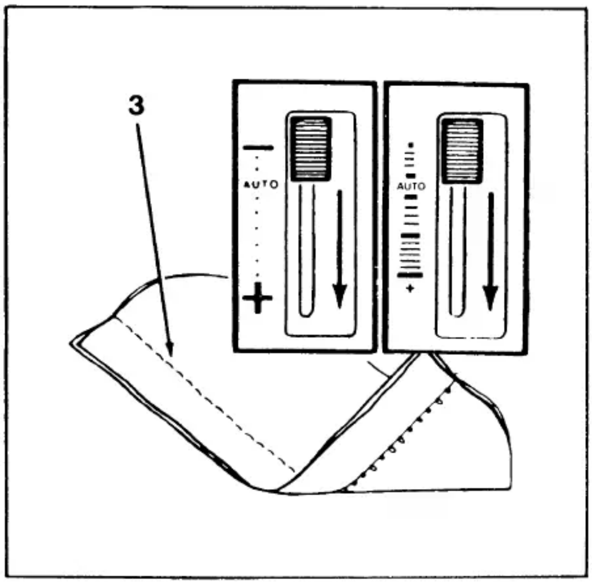
The thread tension on your sewing machine has been pre-set in the auto position to suit most sewing applications. This auto tension feature eliminates the need for you to adjust the tension lever for the majority of your sewing projects.



Proper tension will produce identical stitches on both the front and back of your fabric **(1)**.



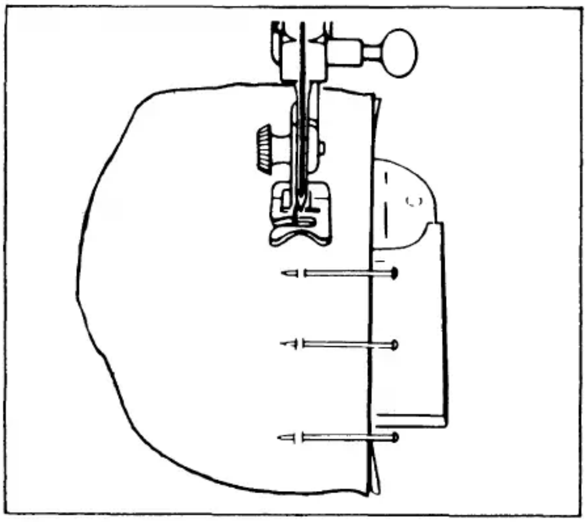
Too much tension will produce a tight stitch, causing a puckered seam **(2)**. Adjust tension by moving lever up toward a looser "–" setting.



Too little tension will produce a loose stitch, causing loops in your seams **(3)**. Adjust tension by moving lever down toward a tighter "+" setting.

SEWING A SEAM

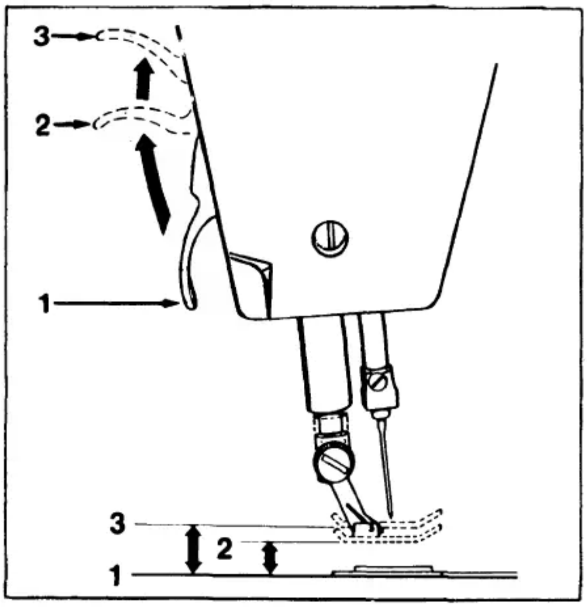
You can sew seams easily and accurately when you follow the suggestions below.



BASTING

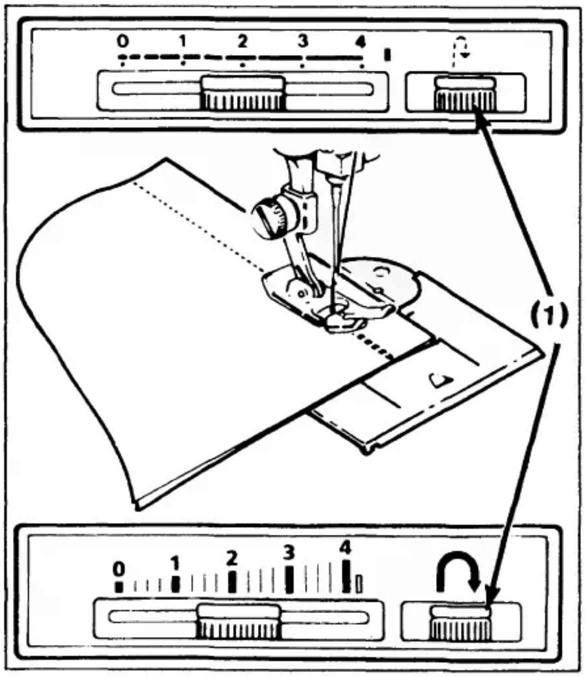
Pin basting and hand basting are easy ways to make temporary seams before machine sewing.

- To pin baste, insert pins at stitching line. NEVER place pins on the underside of fabric in contact with the feed. **Do not sew over pins; pull them out as you stitch.**
- To hand baste, make long, loose stitches that can be easily removed.



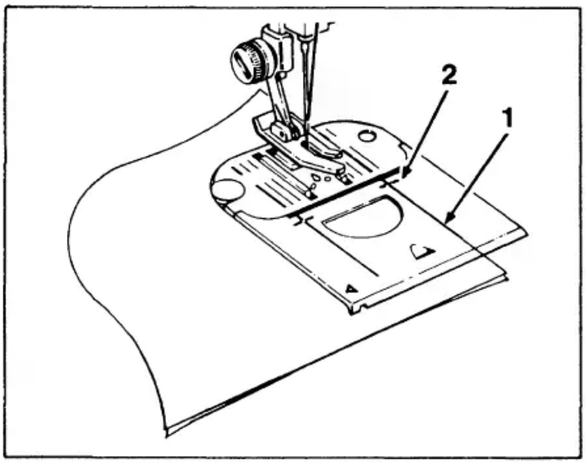
PLACING FABRIC UNDER PRESSER FOOT

- To place fabric under presser foot, raise presser foot lifter **(1)** to its "up" position **(2)**, where it locks in place.
- The lifter can be raised and held in the "extra high" position **(3)** for bulky fabrics.



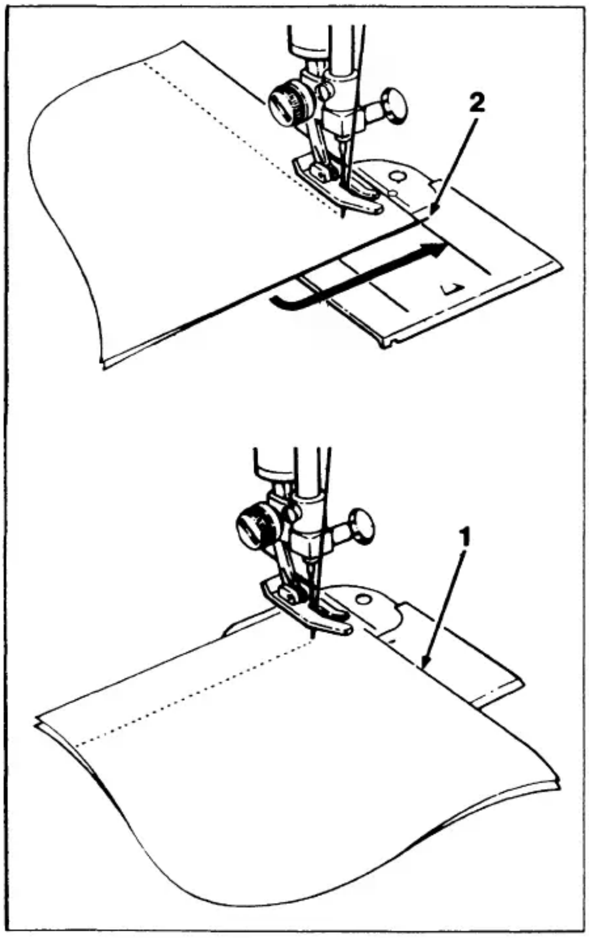
STITCHING IN REVERSE

- To reinforce beginnings or ends of seams, push in reverse lever. **(1)** Machine will straight stitch in reverse for as long as you hold the lever in.
- For continuous reverse stitching, push lever in and slide it to the left to lock. Unlock reverse lever by sliding it back to the right and letting it return to its normal position.



KEEPING SEAMS STRAIGHT

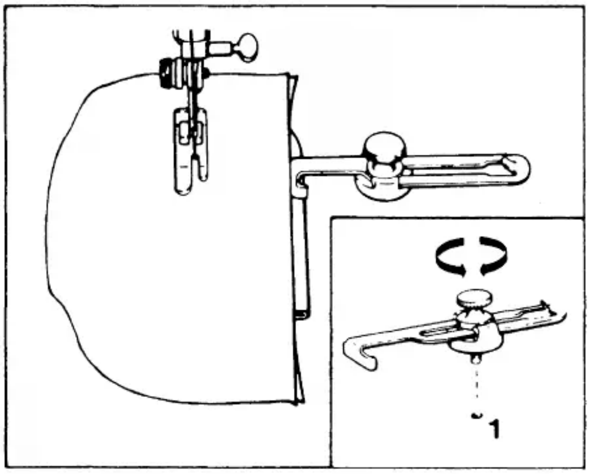
To keep seams straight, use one of the guidelines on the needle plate. The most commonly used line **(1)** is extended onto the slide plate. The crosslines **(2)** serve as guides when stitching square corners.



TURNING SQUARE CORNERS

To turn a square corner, use crosslines on slide plate.

- Line up fabric with extended guidelines on needle plate and stitch seam, slowing speed as you approach corner.
- When bottom of fabric reaches cornering crosslines **(2)** on slide plate, stop stitching.
- Be sure needle is down in fabric.
- Raise presser foot slightly. Turn fabric, bringing bottom edge in line with guideline **(1)**.
- Continue stitching seam.

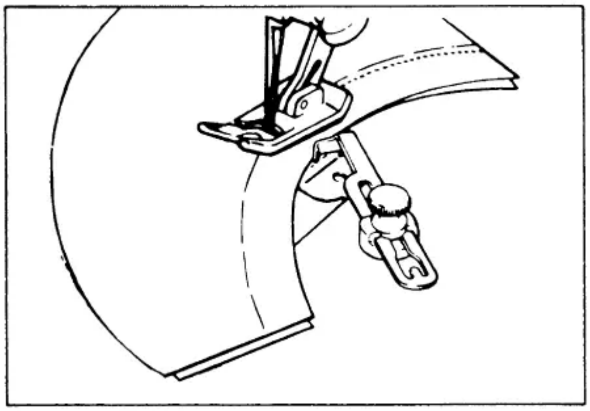


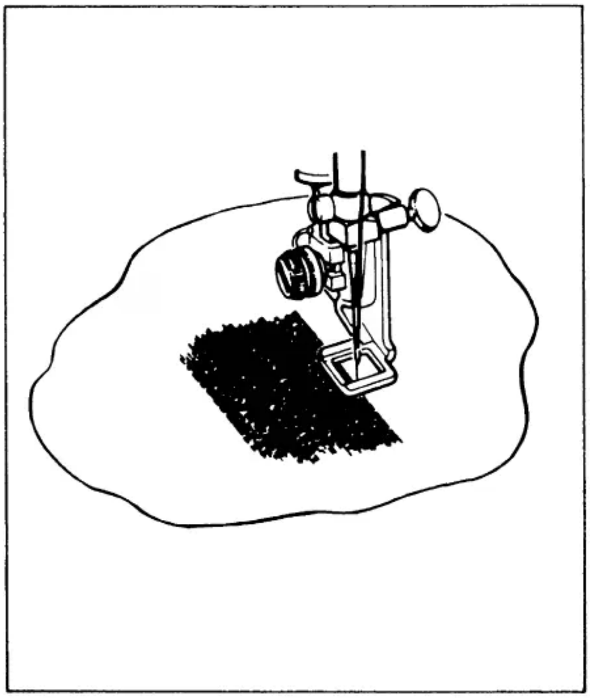
USING THE SEAM GUIDE (N)

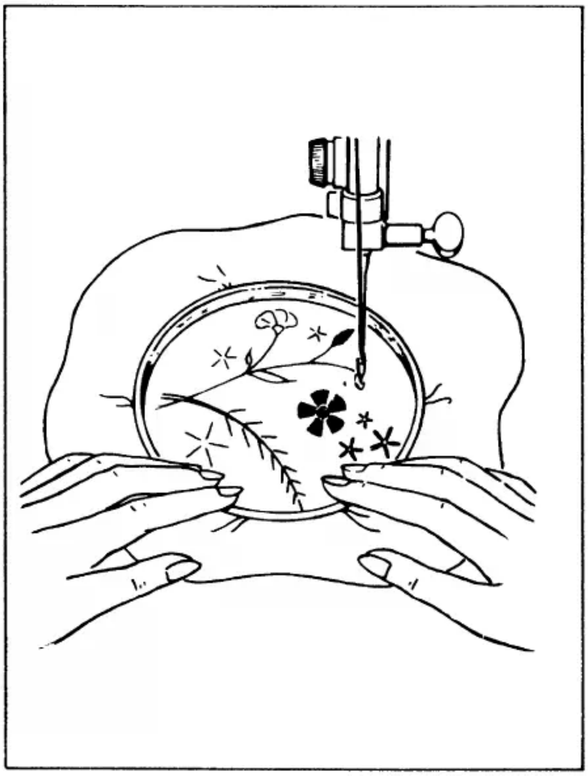
For extra help in keeping seams straight, particularly for very narrow or very wide seams, use the seam guide which comes with your machine.

To attach the seam guide, place screw of seam guide into the hole in the bed of the machine, on the right side of slide plate **(1)**.

Line up the straight edge of the guide with the needle plate guideline for desired seam width and tighten screw.







SEWING CURVED SEAMS

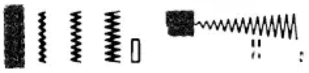
- Baste seam line.
- Use a short stitch for elasticity and strength.
- Guide fabric to follow curve.
- The seam guide may also be used when sewing curved seams. Attach seam guide at an angle so that the edge closer to the needle acts as a guide.

DARNING

Mend worn or torn areas using the Darning and Embroidery Foot.

- Trim ragged edges and baste a backing on wrong side of tear.

RECOMMENDED SETTINGS

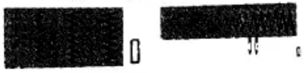
Stitch Selection:	Straight Stitch
Stitch Width:	
Stitch Length:	0
Foot:	Darning and Embroidery **(G)**
Needle Plate:	General Purpose **(A)**

- Attach Food Cover.
- Place area to be darned, right side up, under presser foot; lower foot.
- Stitch, guiding fabric back and forth, until entire area is filled in.

FREE MOTION EMBROIDERY

In free motion embroidery, you sew without a presser foot, and control the fabric with an embroidery hoop.

RECOMMENDED SETTINGS

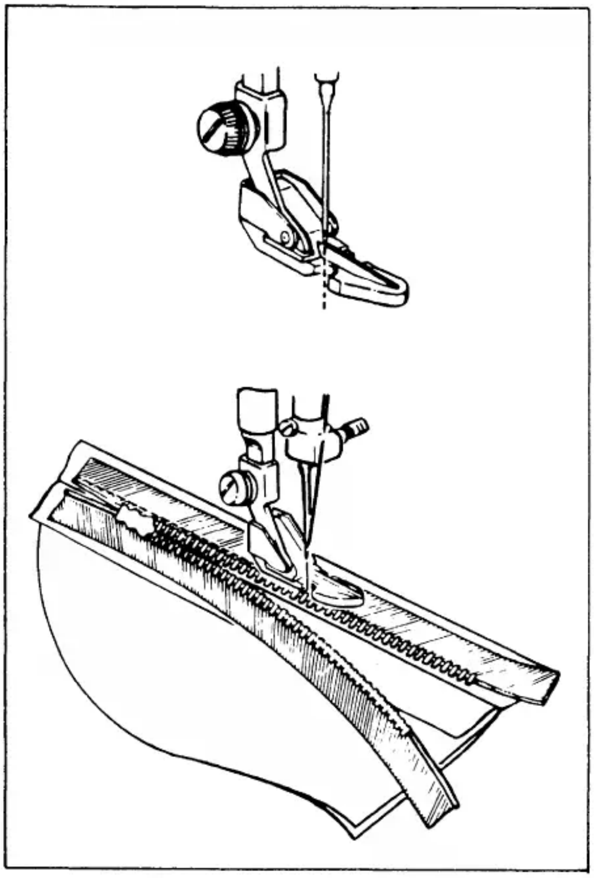
Stitch Selection:	Straight Stitch or Zig-Zag
Stitch Width:	
Stitch Length:	0
Foot:	Remove foot with shank
Needle Plate:	General Purpose **(A)**

- Attach Feed Cover
- Be sure to lower presser foot lifter.
- When embroidering, as shown, use straight stitches for stems, and zig-zag stitches, at varying widths, for leaves and petals. Lengthen stitches by moving the hoop faster or slower.

NOTE: The Darning and Embroidery Foot may be used to help control fabric.

INSERTING A ZIPPER

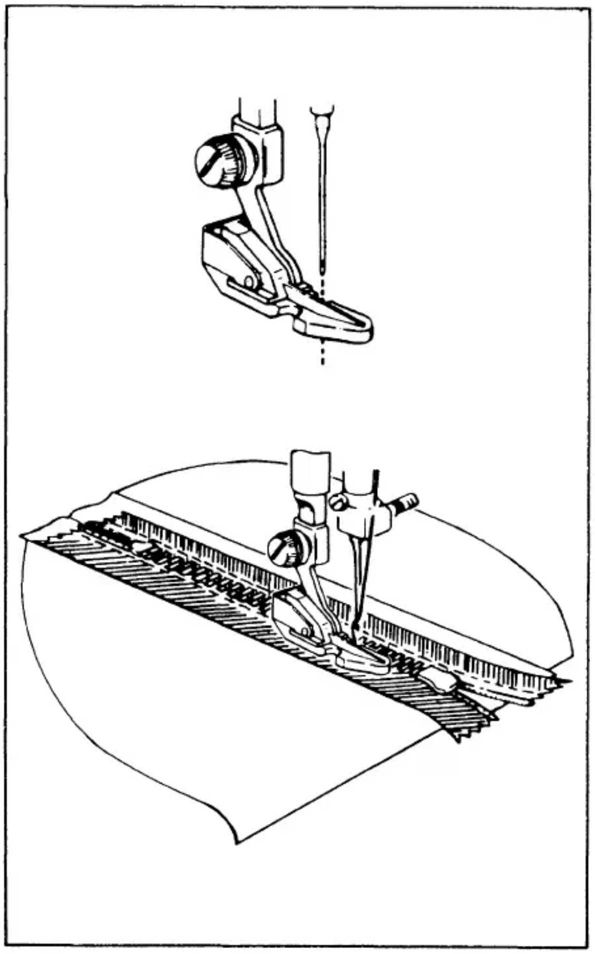
The zipper package will provide complete instructions for inserting zippers.



RECOMMENDED SETTINGS

Stitch Selection:	Straight Stitch
Stitch Width:	▮ ⦚ ⦚ ⦚ ▯ ▬∿∿∿
Stitch Length:	**1-1/2** to **4**
Foot:	Zipper **(E)**
Needle Plate:	General Purpose **(A)**

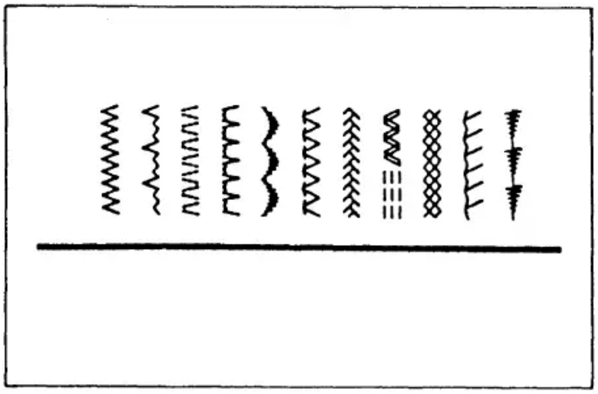
- When zipper is to the left of needle, attach left side of zipper foot to shank. The needle will enter left notch of foot, sewing close along zipper teeth.



- Attach right side of zipper foot to shank when a zipper is to the right side of the needle. The needle will enter right notch of foot, sewing close along zipper teeth.

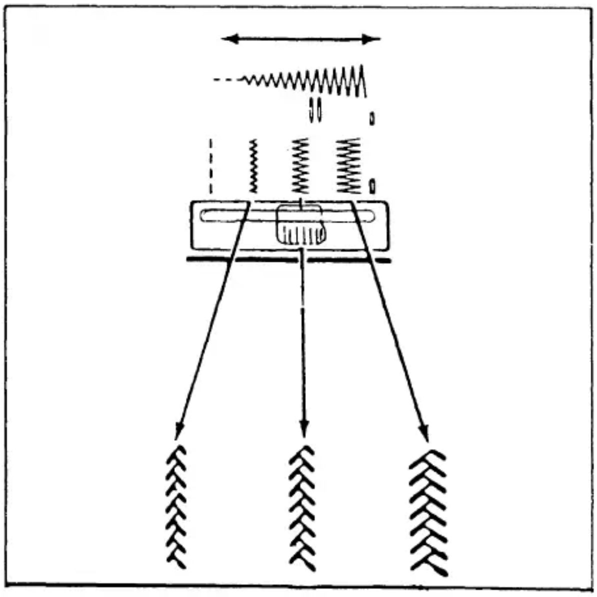
SECTION 4 SPECIAL STITCHES

The Special Stitches on your machine have a variety of practical and decorative uses. In this section are recommended applications for each stitch. However, these stitches can be used for many other sewing projects.



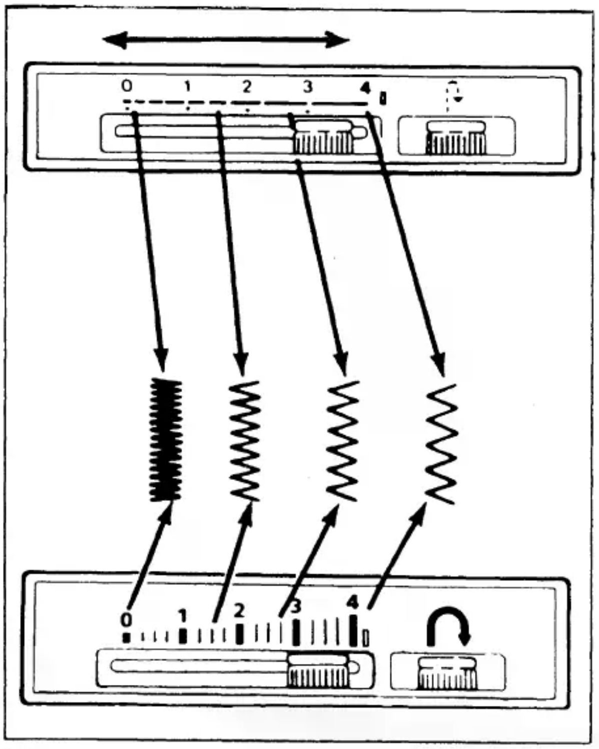
Before beginning a sewing project, check the Fabric, Thread and Needle Table on page 41 for the best needle and thread combination for your fabric.

With each application, recommended settings have been given. These have been highlighted for easy identification. You can adjust each setting, however, as desired.



ADJUSTING STITCH WIDTH

To widen or narrow a Special Stitch pattern, move the stitch width lever off Straight Stitch, ⁞ , toward any other width setting at the right.

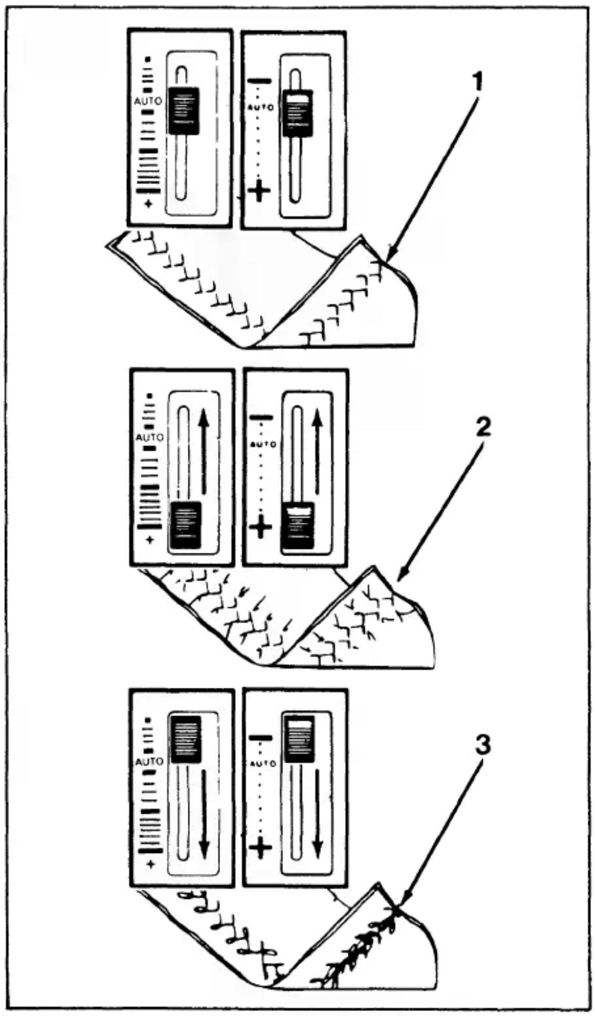


ADJUSTING STITCH LENGTH

The stitch length indicator is numbered **0** to **4**. The area between **0** and **1** will produce very dense stitching. For more open stitching, slide the stitch length lever anywhere from **2** to **4**. When sewing special color coded stitches. The length MUST be set in the **3-1/2** to **4** area.

ADJUSTING THREAD TENSION

Some Special Stitch patterns may require looser thread tension than others. To find the proper tension for your application, make a test sample with the thread and fabric you will be using.



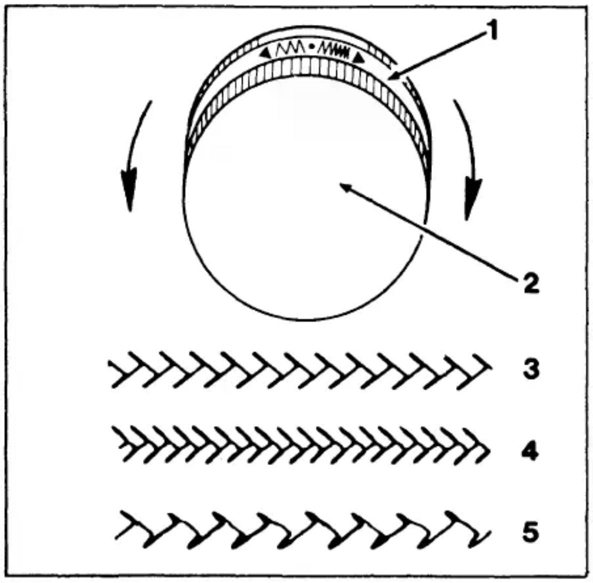
Proper tension produces a smooth, even stitch **(1)**.

Too much tension will produce a tight stitch **(2)**, causing fabric to pucker. Adjust tension by moving lever up toward a looser "–" setting.

Too little tension will produce a loose stitch **(3)**, causing loops in your pattern. Adjust tension by moving lever down toward a tighter "+" setting.

ADJUSTING STITCH BALANCE

You can adjust the appearance of special color coded stitch patterns on the display panel, by turning the stitch balance ring **(1)** behind the pattern selector dial **(2).**



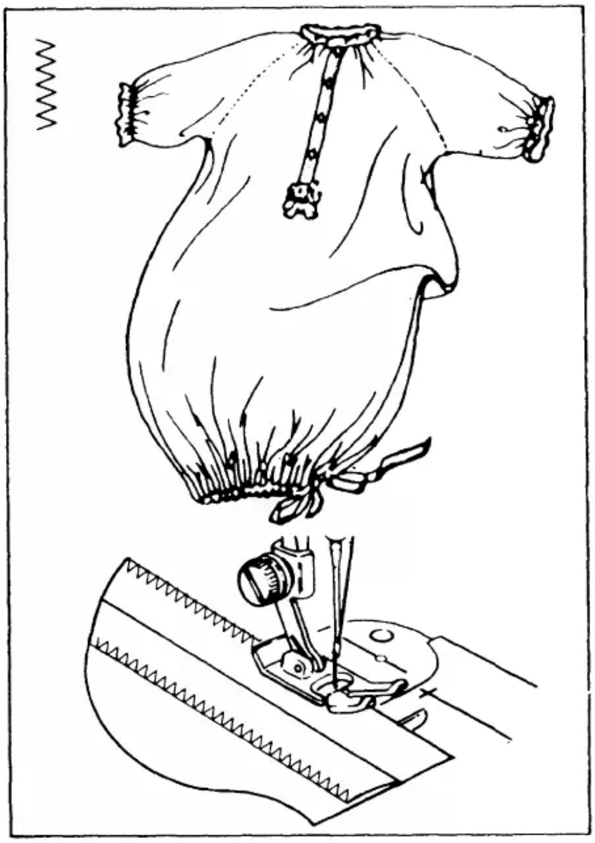
A correctly balanced Fagoting stitch should appear as illustrated **(3)**.

When stitches are too close together (4), separate them by turning the stitch balance ring to the right.

When stitches are too far apart (5), bring them closer together by turning the stitch balance ring to the left.

ZIG-ZAG STITCH

The Zig-Zag Stitch can be used when sewing seams, appliquéing, monogramming or decorating.



SEAM FINISHING

Use a zig-zag stitch to finish seam edges of fabrics that are likely to unravel.

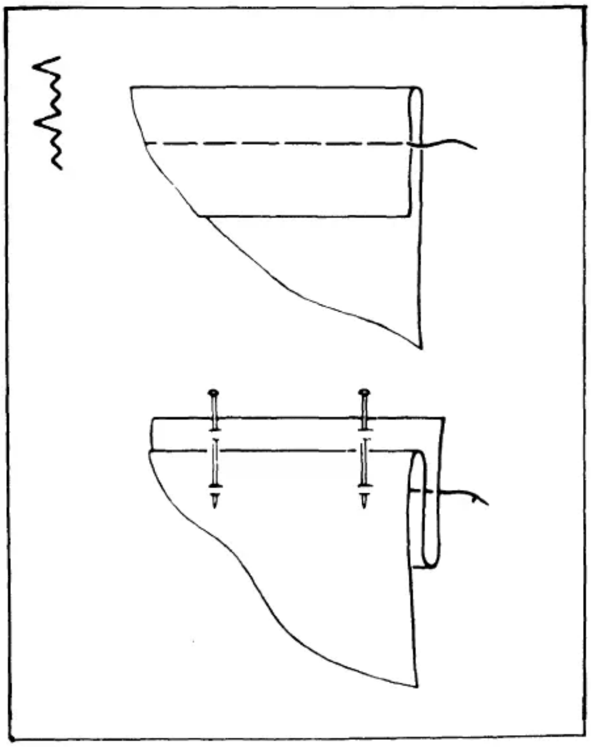
- Sew seams as desired; trim and press open.

RECOMMENDED SETTINGS	
Stitch Selection:	Zig-Zag Stitch
Stitch Width:	▮ ▬
Stitch Length:	**1** to **4**
Foot:	General Purpose **(B)**
Needle Plate:	General Purpose **(A)**

- Place edge of seam allowance under foot, as shown.
- Stitch close to edge, letting outer zig-zag fall **over** edge.

ZIG-ZAG BLINDSTITCH

Blindstitching provides a durable hem finish that can be used on a variety of different weight fabrics. Blindstitching takes a little practice, however, so make a test sample first.

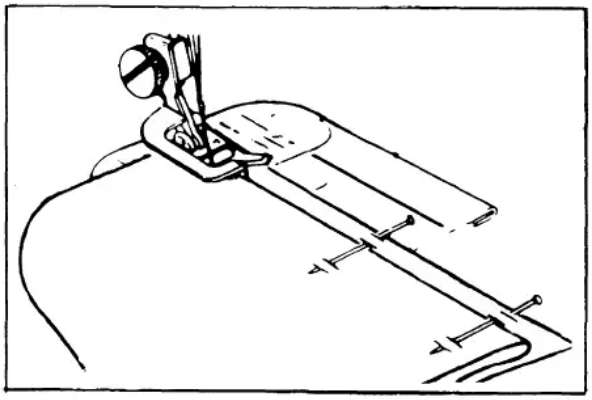


RECOMMENDED SETTINGS	
Stitch Selection:	Zig-Zag Blindstitch
Stitch Width:	▮ ▬
Stitch Length:	**2** to **4**
Foot:	General Purpose **(B)**
Needle Plate:	General Purpose **(A)**

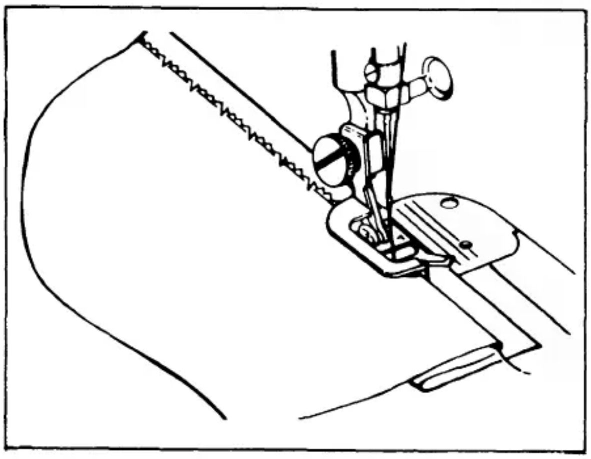
Attach blindstitch hem guide

Prepare the hem by folding it and pressing it in the usual way. You may want to baste the hem to hold it in place, as shown. If so, be sure to place the basting at least ½ inch (12mm) below the top edge of the hem allowance.

With the wrong side of fabric uppermost, turn the hem under, as shown, creating a soft fold from the top edge of hem. Pin or baste all three layers together in place.



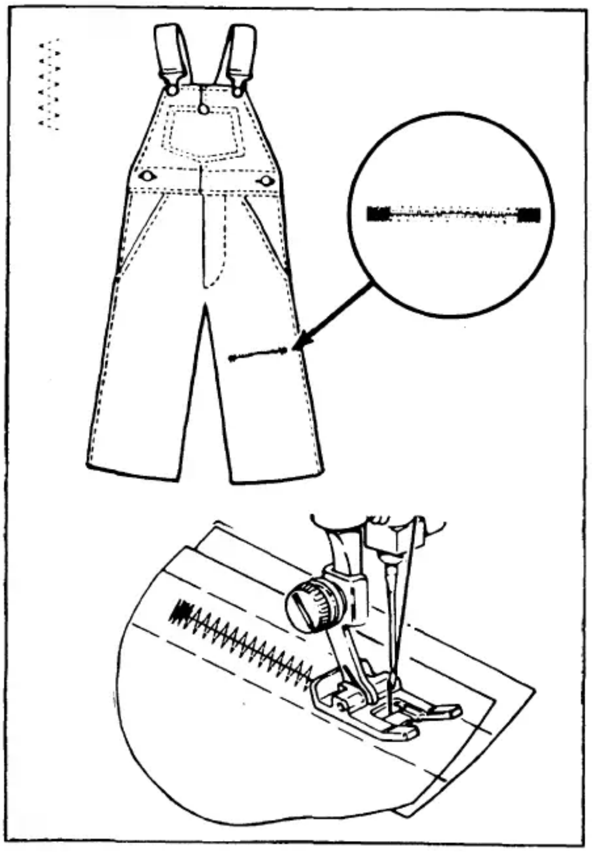
Position the hem under the presser foot with the soft fold resting against wall of the guide. Be sure the flange of the guide is between the soft fold and the top of the hem, as shown.



- Lower the presser foot and begin sewing, making certain the straight stitches fall on the edge of the hem and the zig-zag stitches just pierce the soft fold of the work. Adjust stitch width if necessary. While stitching, guide the hem edge in a straight line and feed the soft fold evenly against the wall of the guide.
- If layers of fabric are pinned together, remove pins as you come to them. Do not sew over pins.

MULTI-STITCH ZIG-ZAG

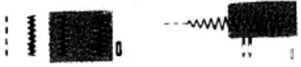
Mending, overcasting, joining or reinforcing can all be done using the Multi-Stitch Zig-Zag.



MENDING A TEAR

- Trim ragged edges of tear.
- Cut a lining of fabric for reinforcement.
- Bring the edges of tear together and baste lining to wrong side of fabric.

RECOMMENDED SETTINGS

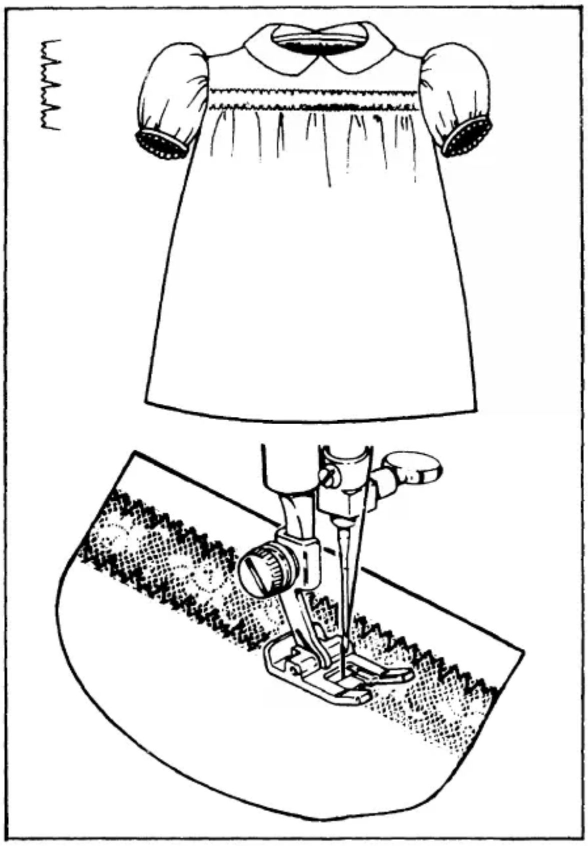
Stitch Selection:	Multi-Stitch Zig-Zag
Stitch Width:	
Stitch Length:	**1** or **lower**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**

- Place tear, right side up, under presser foot.

  Stitch over the line of the tear, shortening stitch length at each end for reinfgorcement.
- Trim thread ends close to fabric.
- If needed, sew over tear again.
- Trim away lining close to stitching.

"M" STITCH

This stitch can be used for stretch seams and decorative stitching.



LACE TRIM

Lace trim may be added to blouses, lingerie and children's wear.

- Cut lace to desired size.
- Pin lace to right side of fabric where desired.

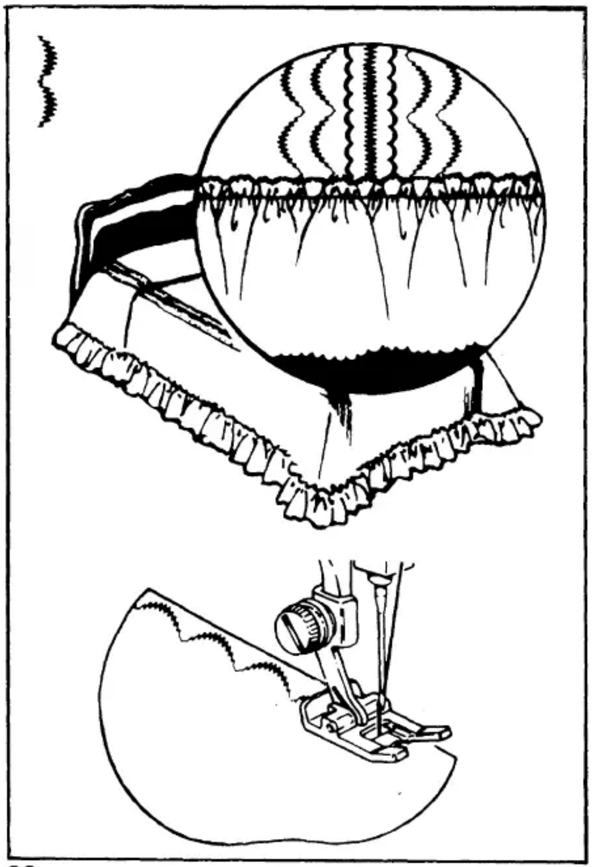
RECOMMENDED SETTINGS

Stitch Selection:	"M" Stitch
Stitch Width:	▮ ▬
Stitch Length:	**2** or **lower**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**

- Carefully stitch along both edges of lace, as shown.
- Trim away the fabric under the lace near stitching lines.

CRESCENT STITCH

This stitch is ideal for borders, edges, smocking and embroidering.



BORDER DESIGN

Border designs decorate clothing and many household items.

- Sew seams in usual manner and press.
- Mark stitching lines of fabric where desired.

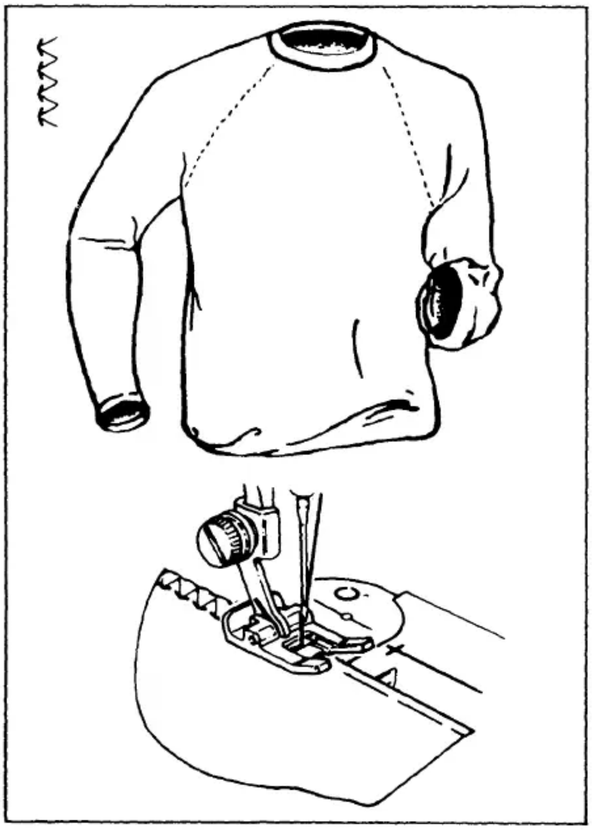
RECOMMENDED SETTINGS

Stitch Selection:	Crescent Stitch
Stitch Width:	▮ ▬
Stitch Length:	**1** or **lower**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**

- Center marked line under presser foot and stitch.
- Pull threads to wrong side of fabric; tie and trim.

STRETCH OVEREDGE STITCH

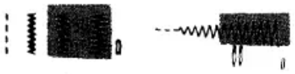
With this stitch you can stitch and finish a seam in one step. It is also ideal for finishing seams, hems and facings requiring stretch.



OVEREDGE SEAM

- Baste seams.
- Trim seam edge 1/4″ (6mm) from basting line.

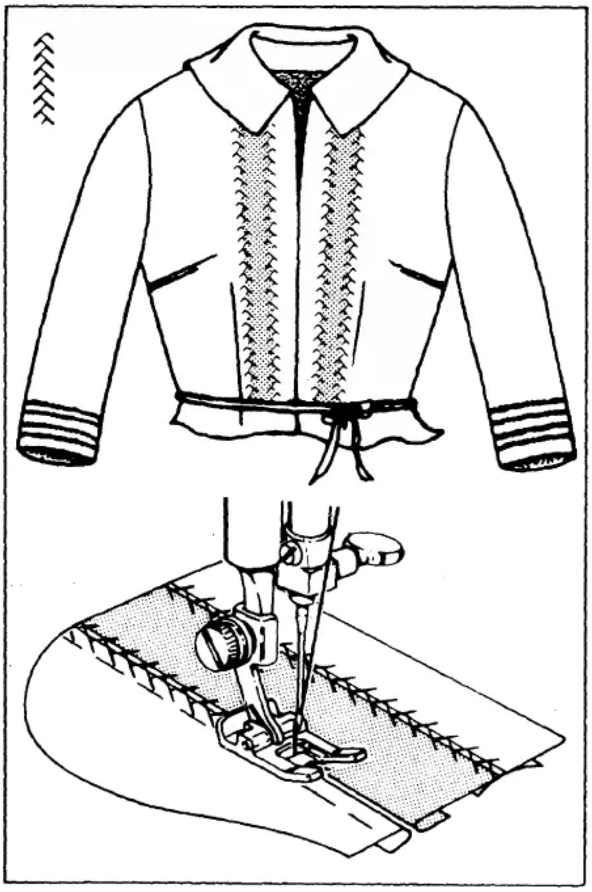
RECOMMENDED SETTINGS

Stitch Selection:	Stretch Overedge Stitch
Stitch Width:	
Stitch Length:	**3-1/2** to**4**
Foot:	Special Purpose**(J)**
Needle Plate:	General Purpose **(A)**
Adjust balance, if necessary	

- Position trimmed seam under presser foot, as shown.
- Stitch along basting line.
- Straight stitches should fall **on** basting line; zig-zag stitches should fall **over** seam edge.
- Remove basting stitches and press.

FAGOTING STITCH

Use this stitch for fagoting, embroidery, patchwork or strengthening seams.

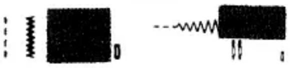


FAGOTING

Fagoting is an open, lacy stitch used to join two pieces of fabric.

- Fold under edges to be joined and press.
- Baste the edges 1/8″ (3mm) apart onto a sheet of tissue paper for support.
- Position center of work under center of presser foot.

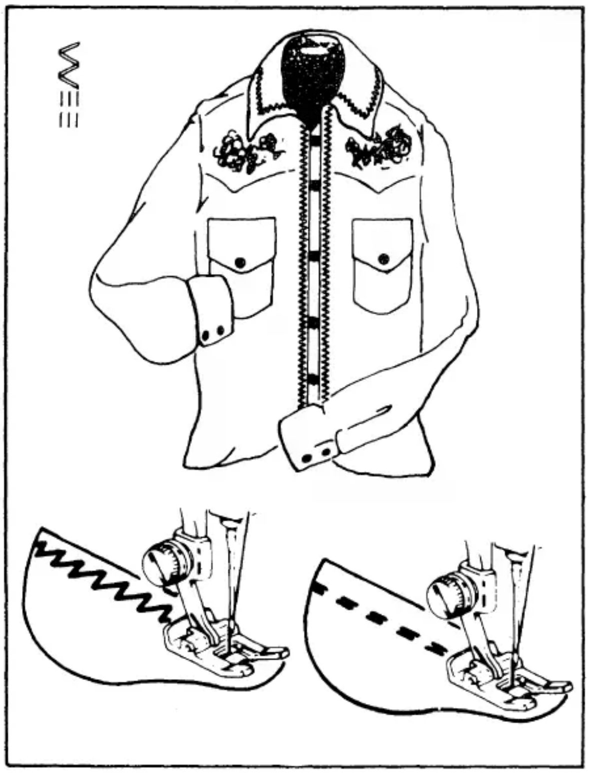
RECOMMENDED SETTINGS

Stitch Selection:	Fagoting Stitch
Stitch Width:	
Stitch Length:	**3-1/2** to **4**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**
Adjust balance, if necessary	

- As you sew, the needle should make a stitch first in one fabric strip, and then in the other.
- After stitching is completed, remove tissue and basting.

RIC-RAC/STRAIGHT STRETCH STITCH

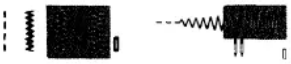
This is a heavy-duty, stretch stitch that can also be used for topstitching.



TOPSTITCHING

- Sew seams in usual manner and press.
- For topstitching hard-to-reach areas, convert machine to free arm sewing.

RECOMMENDED SETTINGS

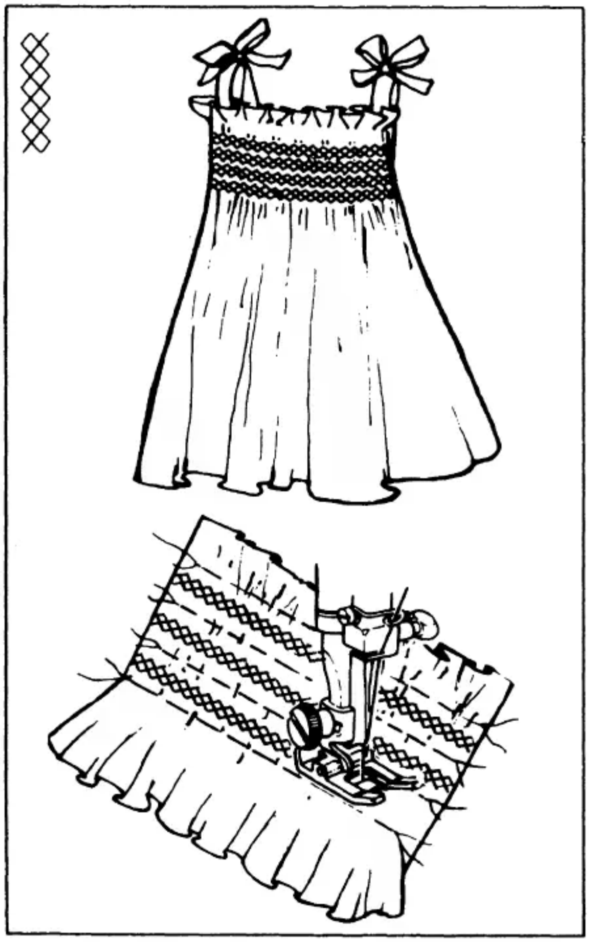
Stitch Selection:	Ric-Rac/Straight Stretch Stitch
Stitch Width:	
Stitch Length:	**3-1/2** to 4
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**

Adjust balance, if necessary

- Place garment right side up, under foot.
- Slowly topstitch desired areas.
- Pull threads to wrong side of fabric; tie and trim.
- To create a straight stretch stitch, set stitch width to the left and stitch length to #4.

HONEYCOMB STITCH (If your machine has this pattern.)

Use the Honeycomb Stitch for smocking, mending and sewing stretch fabrics.

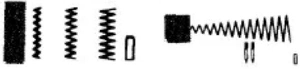


SMOCKING

Smocking is decorative stitching across evenly spaced gathers of fabric.

To Gather Fabric:

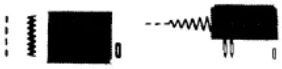
RECOMMENDED SETTINGS

Stitch Selection:	Straight Stitch
Stitch Width:	
Stitch Length:	**4**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**

- Sew rows of straight stitches, 1/4″ apart, across area to be smocked.
- Pull thread evenly, gathering fabric
- Tie ends of every two rows of stitching together to hold gathers in place.
- Baste a backing to wrong side of fabric.

To Smock Fabric:

RECOMMENDED SETTINGS

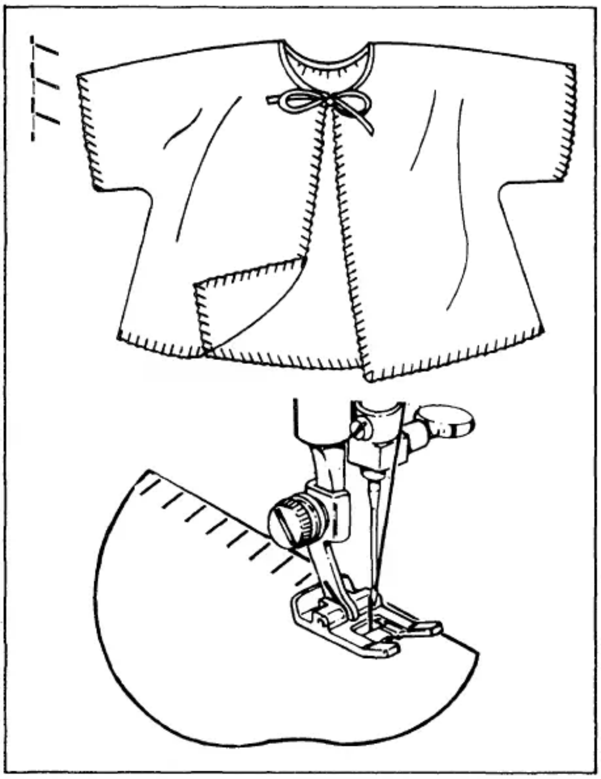
Stitch Selection:	Honeycomb Stitch
Stitch Width:	
Stitch Length:	**3-1/2** to4

Adjust balance, if necessary

- Sew between rows of straight stitches.
- Pull out straight stitches when completed.

SLANT OVEREDGE STITCH

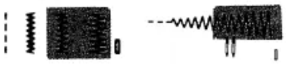
With the Slant Overedge Stitch you can stitch and finish a seam in one step. It is also ideal for edging and appliqueing.



EDGING

Add a delicate touch to your sewing while finishing and reinforcing your edges.

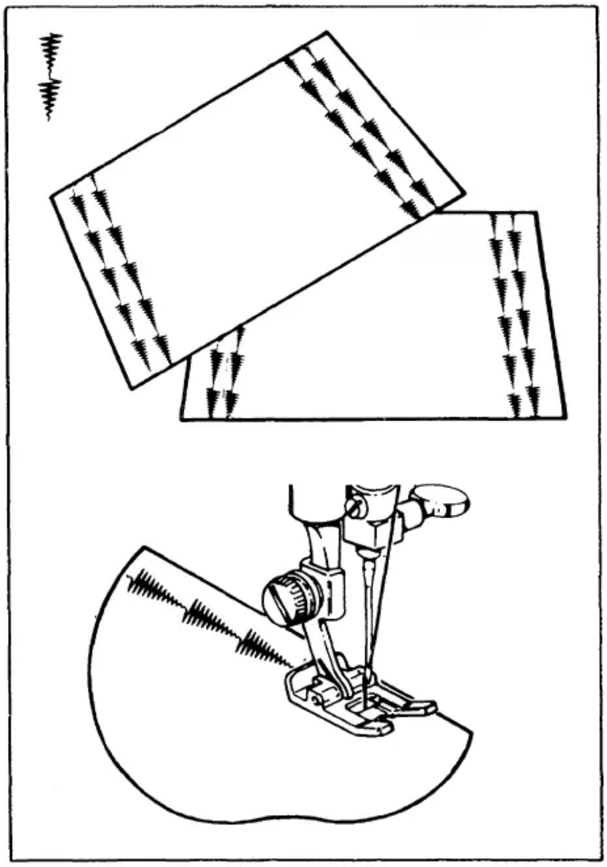
- Sew seams in usual manner and press.

RECOMMENDED SETTINGS	
Stitch Selection:	Slant Overedge Stitch
Stitch Width:	
Stitch Length:	**3-1/2** to **4**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**
Adjust balance, if necessary	

- Place edge of garment, right side up, under presser foot.
- Bulk of garment should be to the left.
- As you stitch, needle should go over right edge of fabric, as shown.

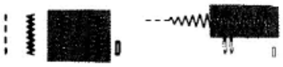
ARROW STITCH (If your machine has this pattern.)

This stitch is a decorative and secure finish to seams, pleats and pockets. It can also be used as a border design.



BORDER DESIGN

- Sew seams in usual manner and press.
- Mark stitching lines on fabric where desired.

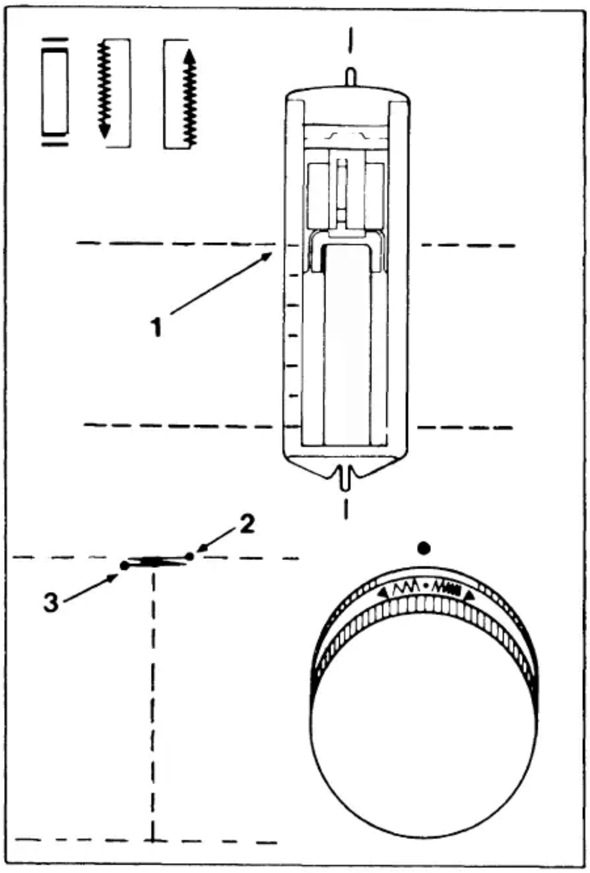
RECOMMENDED SETTINGS	
Stitch Selection:	Arrow Stitch
Stitch Width:	
Stitch Length:	**1** or **lower**
Foot:	Special Purpose **(J)**
Needle Plate:	General Purpose **(A)**

- Center stitching line under presser foot and sew.
- Trim thread ends close to fabric.

SECTION 5 FOUR-STEP BUTTONHOLING

Your machine makes buttonholes in four easy steps.

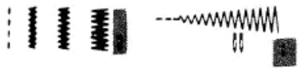
- You never need to move the fabric or reposition the needle.
- Always make a practice buttonhole on a sample of your fabric.
- Be sure bobbin contains enough thread.
- When making buttonholes on hard-to-reach areas convert machine bed to free arm sewing.
- Mark buttonhole position on fabric as indicated in pattern.
- When sewing delicate fabrics, place a piece of paper over the fabric when positioning the garment. Lower the presser foot and slip the paper out from under the foot. This will prevent the teeth on the underside of the foot from picking and pulling the fabric.



Recommended Settings

Stitch Selection: Buttonhole Stitch

Stitch Width:

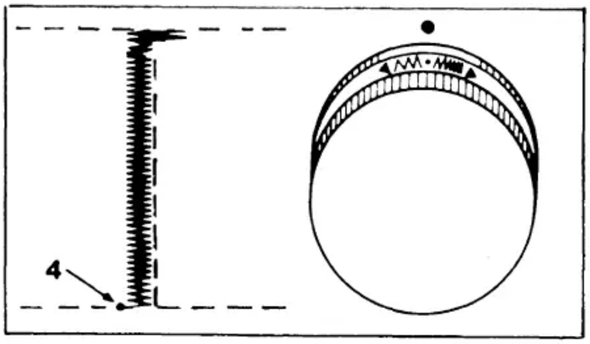


Stitch Length: 4

Foot: Buttonhole **(L)**
Needle Plate: General Purpose **(A)**

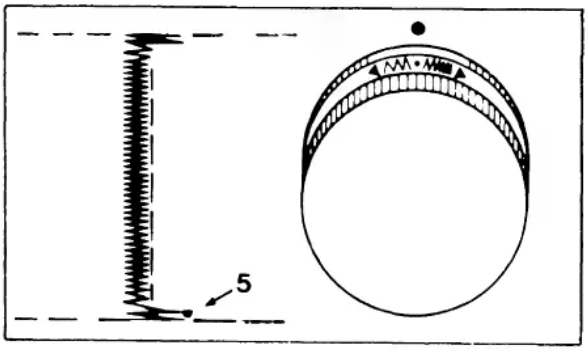
Step 1

- Raise presser foot.
- Place fabric under foot.
- Center a red guideline (1) of foot around beginning line of buttonhole.
- Select Buttonhole Stitch ▯
- Position needle in fabric at point **(2)**.
- Lower the foot and make sure the slide-ing portion of the foot is all the way forward. Make 4 or 5 stitches ending at point **(3)**.
- Raise needle.



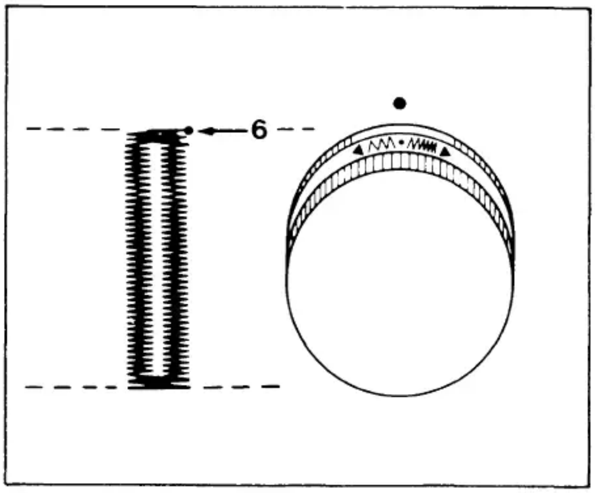
Step 2

- Select Buttonhole Stitch [
- Stitch down to point **(4).**
- Raise needle.



Step 3

- Select Buttonhole Stitch =
- Make four or five stitches, ending at point **(5).**
- Raise needle.

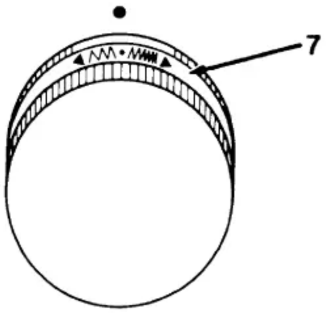


Step 4

- Select Buttonhole Stitch ▯
- Stitch up to point **(6)**.
- Raise needle.

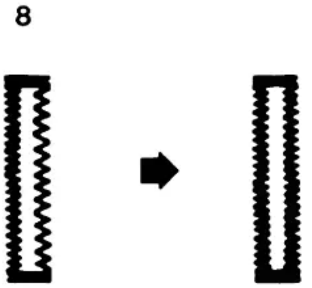
- Raise presser foot and remove garment from machine.
- Clip thread ends.
- Carefully cut buttonhole opening with a seam ripper or small, sharp scissors.

ADJUSTING BALANCE OF BUTTONHOLE

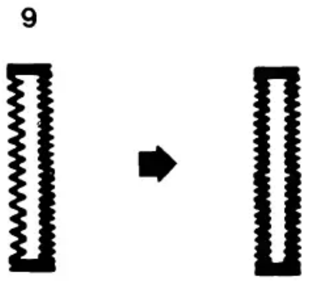


If the two stitching sides of your buttonhole are unequal, turn the stitch balance ring **(7)**, located behind the selector dial.

On some heavy weight fabrics an adjustment might be necessary.



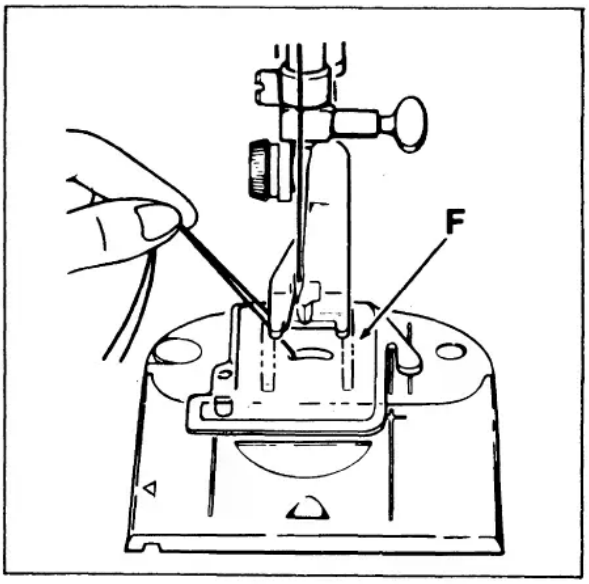
- If the right side of stitching is too open **(8)**, turn stitch balance ring **slightly** to the right until both sides are equal.



- If the left side of stitching is too open **(9)**, turn stitch balance ring **slightly** to the left until both sides are equal.

ATTACHING A BUTTON

Flat buttons can be sewn on quickly and easily using the plain zig-zag stitch



RECOMMENDED SETTINGS

Stitch Selection: Zig-Zag Stitch

Stitch Width: ■ ▬

Stitch Length: 0

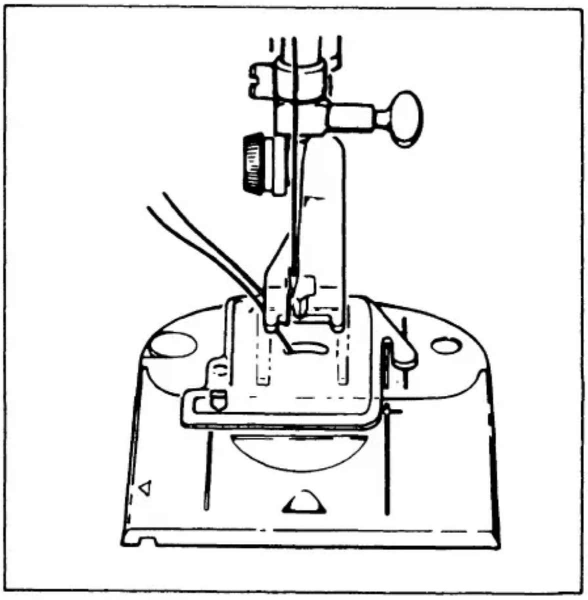
Foot: Button Sewing **(H)**

Needle Plate: General Purpose **(A)**

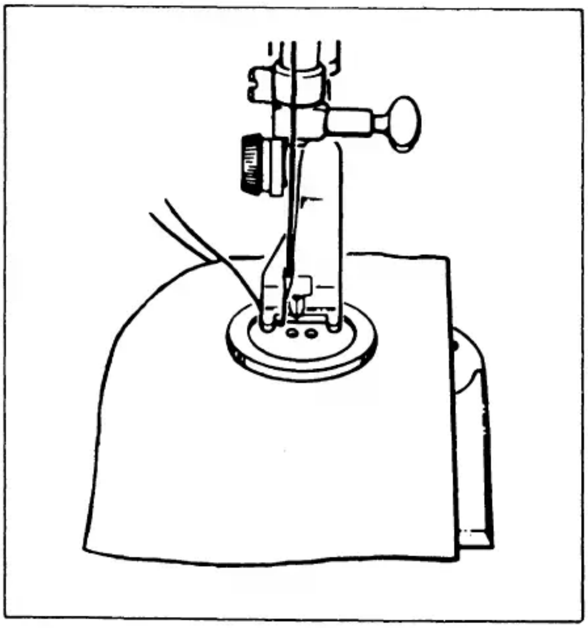
Attach Feed Cover **(F)**

- The space between the holes in the button determines stitch width setting.

  Before you can attach a button, the bobbin thread must be brought up through the hole in the feed cover **(F)**.

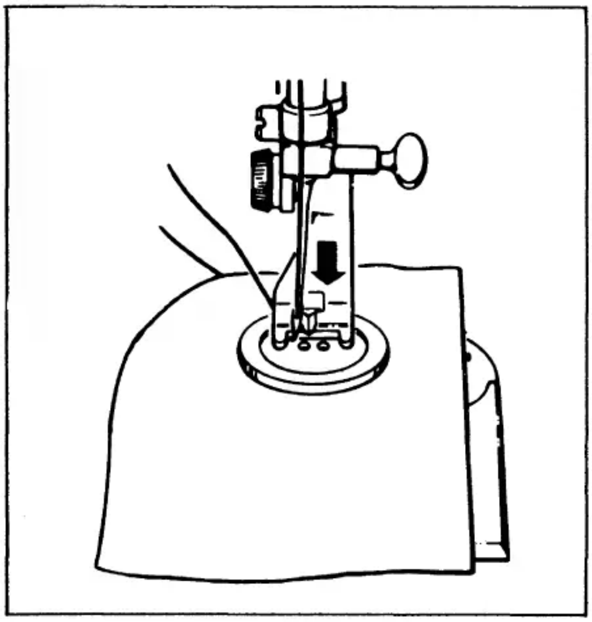


- Raise foot lifter.
- Position both threads under button foot toward rear of machine.
- Hold needle thread while lowering needle into hole in feed cover. Raise needle and gently pull needle thread, undo loop of bobbin thread that comes up with the needle. Details on "Raising the Bobbin Thread" are on page 17.

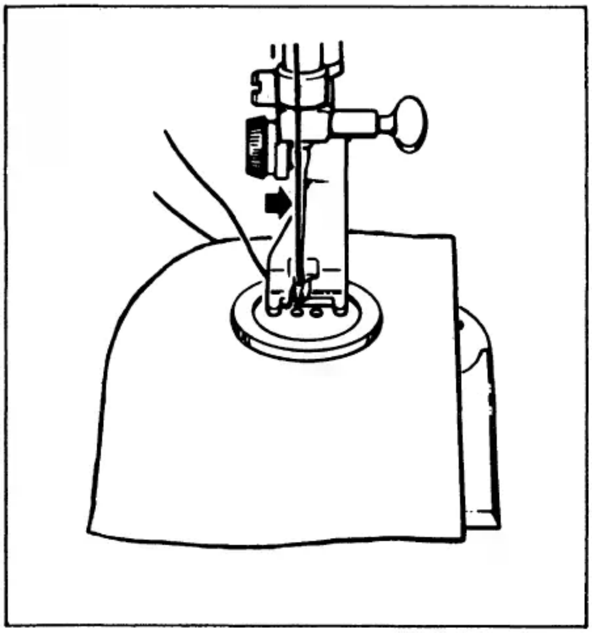


1. Place garment under button foot.

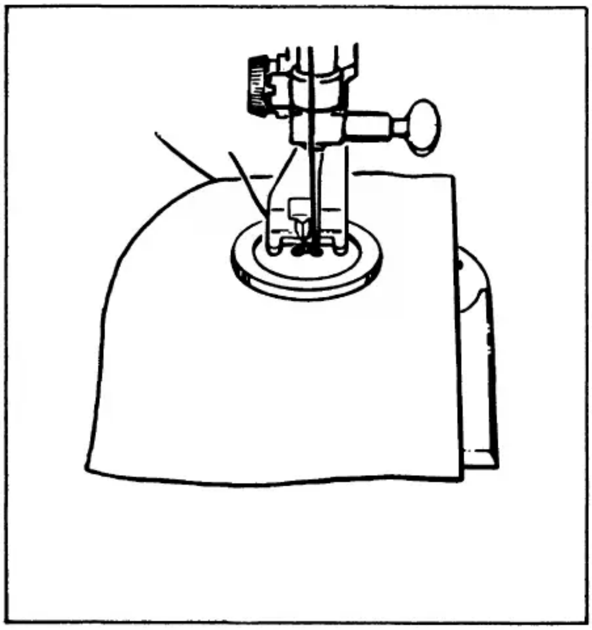
- Position button on garment making sure the holes in the button are between the toes of the button foot.
- Lower foot lifter.



2. Turn hand wheel toward you, lowering needle into either hole of button.



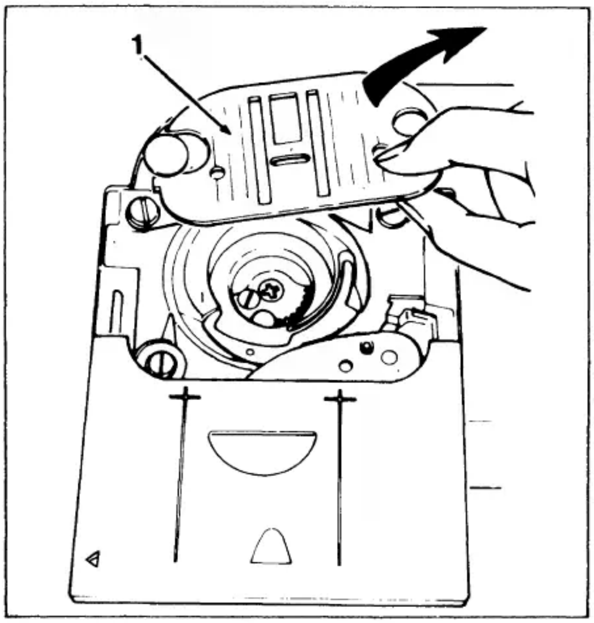
3. Continue turning hand wheel until needle rises and moves over the other hole of button. Adjust width if necessary.



4. Lower needle into hole.

- Run machine **slowly** making 6 or more stitches to attach button.
- Remove work from machine, leaving 4″ (10cm) of thread.
- To secure stitching, pull thread ends to inside of garment and knot close to fabric.

REMOVING AND REPLACING BOBBIN CASE

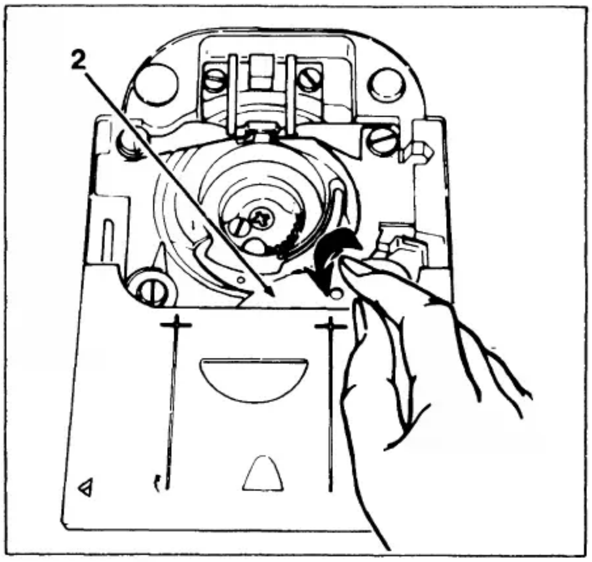


CAUTION: Before cleaning or adjusting the machine, remove plug from the socket outlet.

- Raise presser foot and needle.
- Open slide plate and remove bobbin.

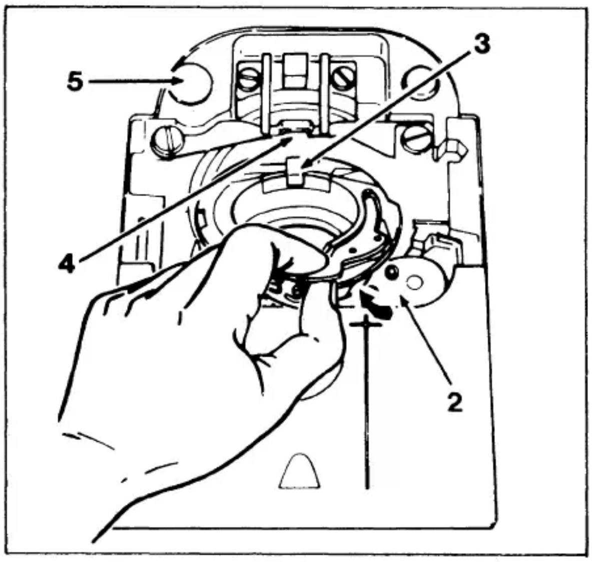
To remove the bobbin case, the needle plate must be removed first.

- Lift needle plate **(1)** from right corner and slide out from under foot.



TO REMOVE BOBBIN CASE

- Push lever **(2)** toward you until it stops, and hold in this position.
- Lift bobbin case up and guide it out toward you, as shown.



TO REPLACE THE BOBBIN CASE

- Push lever **(2)** toward you until it stops and hold in this position.
- Guide bobbin case into place, making sure block **(3)** is all the way under metal bracket **(4)**.
- Return lever **(2)** to locking position **over top of bobibn case.**

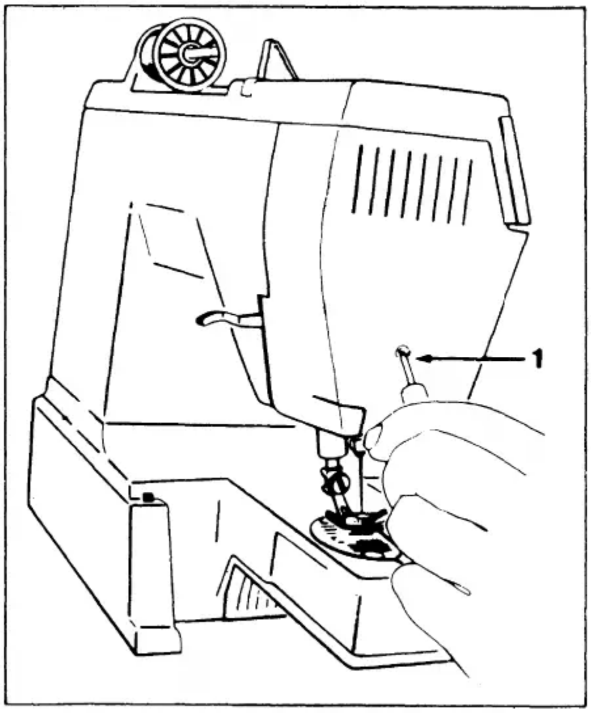
NOTE: After locking case in place, be sure it is **not tight,** but can **move slightly.**

- To replace needle plate, slide it under pin **(5)** and push it to the left.
- Press needle plate down in palce.
- Insert bobbin and close slide plate.

REMOVING AND REPLACING LIGHT BULB

CAUTION:

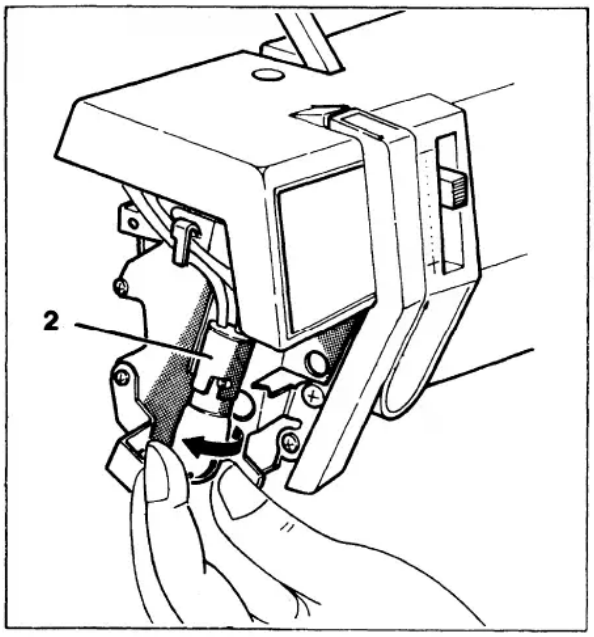
- Before changing light bulb, make sure you have removed plug from socket outlet. Be sure to replace the face plate which covers the light bulb before operating the machine.



- This machine is designed to use a 15-watt maximum light bulb.

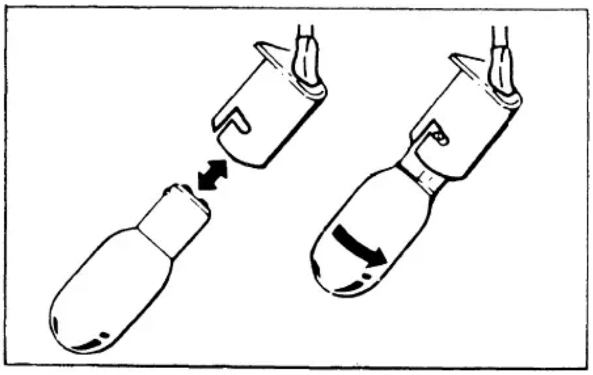
To change the light bulb, the face plate must first be removed.

- Loosen and remove screw **(1)**.
- Slide face plate down and away from machine.



TO REMOVE THE LIGHT BULB

- Push bulb up into socket **(2)** and turn to the left to unlock bulb pins.
- Pull bulb down and out of socket.

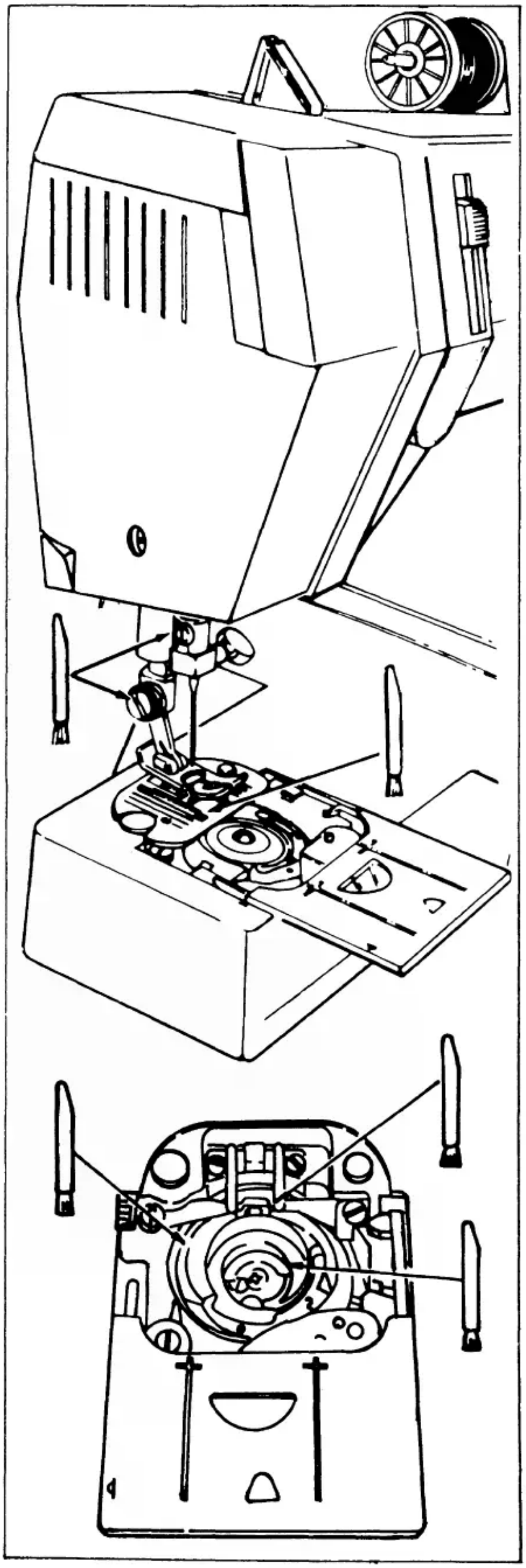


TO REPLACE THE LIGHT BULB

- Push new bulb up into socket and turn to the right until pins lock into position.
- Reposition face plate by sliding top edge of plate under edge of top cover.
- Line up screw hole in plate with screw hole in machine.
- Insert screw and tighten.

CLEANING THE MACHINE

Your machine is designed to give you many years of dependable service. To ensure this reliability, take a few minutes to keep the machine clean. How often you clean it depends on how often you use it.



- Using the lint brush, remove lint or dust from:

— presser bar

— needle bar

— bobbin case (if there is a lot of lint in this area, remove the bobbin case for cleaning)

— machine surface (if necessary, dampen a soft cloth and use a mild soap to clean the surface)

- Remove needle plate as instructed and clean exposed area with a lint brush.

PERFORMANCE CHECKLIST

When sewing difficulties occur, look back through this manual to make sure you are correctly following the instructions. If you still have a problem, the reminders below may help you to correct it.

Needle Does Not Move

Is machine connected to electrical supply?
Is the power and light switch on?
Is controller connected?
Is air supply from controller clear?

Needle Moves But Stitch Is Not Formed

Is needle defective?
Is needle fully inserted into needle clamp?
Are bobbin and needle correctly threaded?
Is bobbin correctly inserted into bobbin case?

Needle Breaks

Is needle straight and sharp?
Is needle correct size?
Is needle fully inserted into needle clamp?
Are controls properly set?
Are accessories correct for application?

Bobbin Winding Difficulties

Is thread unwinding freely from spool?
Is bobbin winder engaged?
Is thread end securely held at start of wind?

Upper Thread Breaks

Is machine properly threaded?
Is thread freely unwinding from spool?
Is proper spool cap being used?
Is needle correct size for thread?
Is upper thread tension too tight?
Is bobbin case properly inserted?
Is bobbin rim free of nicks?

Lower Thread Breaks

Is bobbin correctly wound?
Is bobbin correctly inserted into bobbin case?
Is bobbin case correctly threaded?

Skipped Stitches

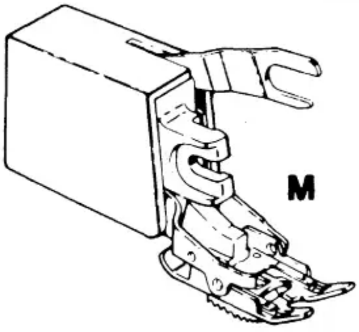
Is machine properly threaded?
Is fabric firmly held down?
Is needle correct style and size?
Is needle straight and sharp?

Fabric Does Not Move Properly Under Presser Foot

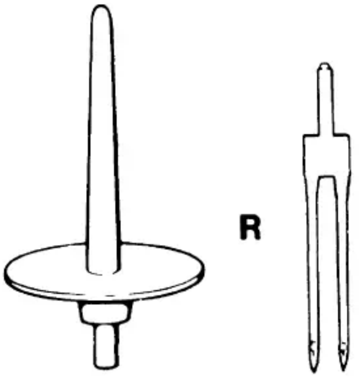
is presser foot correctly attached to machine?
Is presser foot lowered?
Is stitch length correctly set?

ADDITIONAL ACCESSORIES

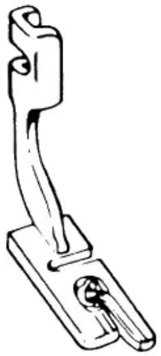
Additional Accessories for your sewing machine are available at your sewing center.

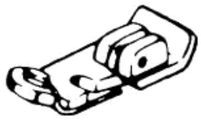


Even Feed Foot (M) is used for sewing hard-to-feed pile, stretch and bonded fabrics. Also excellent for plaids, stripes and topstitching.



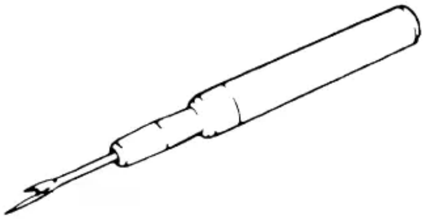
Twin Needle and Spool (R) are used for decorative twin needle (2 threads) stitching on woven and knit fabrics.





Overedge Foot, use with Overedge Stretch Stitch for seams in stretch fabrics.

Narrow Hemmer Foot is used to stitch a narrow hem in a single operation.



Seam Ripper, use to pick and cut threads quickly and neatly.

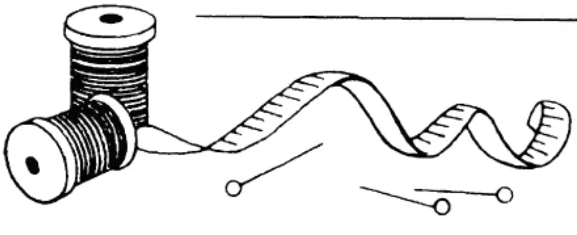
Fabric, Thread and Needle Table

- The needle and thread used for a sewing project depends upon the fabric that is chosen.
- The table below is a practical guide to needle and thread selections for most situations.
- Refer to it before starting to sew. Be sure to use the same size and type of thread in both needle and bobbin. For best results, use only genuine Singer needles.

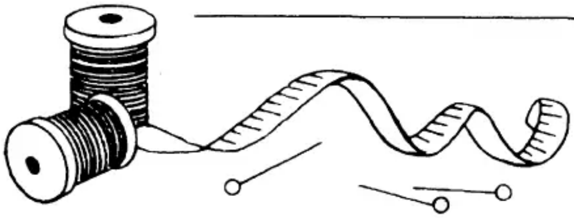
Fabric	**Thread**	**Needles**	
		Type	**Size**
Delicate - tulle chiffon, fine lace, organza	Fine mercerized cotton Fine synthetic thread	Style 2020	9/70
Lightweight - batiste, organdy, jersey, voile, taffeta, crepe, chiffon velvet, plastic film	50 mercerized cotton - silk Fine synthetic thread	Style 2020	11/80
Medium Weight - gingham, percale, pique, linen, chintz, faille, satin, fine corduroy, velvet, suitings, knits, deep-pile fabrics, vinyl	50 mercerized cotton - 60 cotton Synthetic thread	Style 2020	14/90
Medium Heavy - gabardine, tweed, sailcloth, denim, coatings, drapery, vinyl, deep-pile fabrics	Heavy-duty mercerized cotton 40 to 60 cotton - Synthetic thread	Style 2020	16/100
Heavy - overcoatings, dungaree, upholstery fabrics, canvas	Heavy-duty mercerized cotton 24 to 40 cotton - Synthetic thread	Style 2020	18/100
All Weights - decorative topstitching	Buttonhole twist**	Style 2020	16/100 18/100
Synthetic Knits and Stretch Fabrics - polyester doubleknit, nylon tricot, jersey, cire, panne velvet, bonded fabrics, raschel	Synthetic thread- 50 mercerized cotton - Silk	Style 2045 Ball Point	14/90
Leather - suede, kidskin, lined leathers	50 mercerized cotton Synthetic thread - Silk	Style 2032	11/80 14/90 16/100

** Use with standard sewing thread in bobbin.

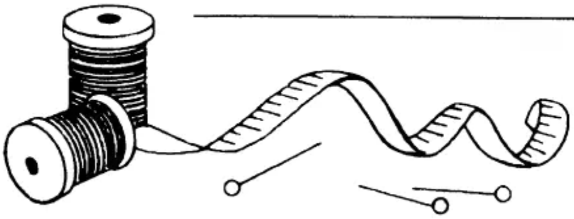
PERSONAL NOTES



PERSONAL NOTES



PERSONAL NOTES



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